NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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SIMON BROWN, EDITOR.

JUNE.

"How lovely how charming has nature been made,
The hill in the sunshine, the walk in the shade;
The wild rose adorning the hedge with its bloom,
And loading the air with the perfume of June.
How green are the meadows, how bright is the morn,
How glitter the dew-drops on laurel and thorn;
How pearly and pure is the briar in bloom,
How lovely the flowers that blossom in June."

TO the operations of the laws of nature, JUNE, lovely JUNE,—the Month of roses,—again opens upon us, with all its new scenes, new sounds and new employments. Without these agreeable changes, life would become one monotonous and gloomy road to the grave! But the wise and good Father has not left us to such a fate. His mercies are not alone in the revolving seasons, but are "every morning and evening new,"—every hour, indeed, crowning our lives with fresh proofs of his love, if we will but listen to his voice, and study the pages everywhere so amply unfolded to us.

Now, *Summer* has come, and opens to us a new volume—just as new as though it never had been opened before. Let us observe some of its wonderful productions.

When June opens, "Spring may be considered," says a beautiful English writer, "as employed in completing her toilet, and for the first weeks of this Month, putting on those last finishing touches which an accomplished beauty never trusts to any hand but her own. In the woods and groves, also, she is still clothing some of her noblest and proudest attendants with their new annual attire. The Oak, until now, has been nearly bare; and, of whatever age, has been looking old all the Winter and Spring, on account of its crumpled branches and wrinkled rind. Now, of whatever age, it looks young, in virtue of its new green, lighter than all the rest of the grove. Now, also, the stately Walnut, standing singly or in pairs, puts forth its smooth leaves slowly, as "sage, grave men" do their thoughts; and which over-caution reconciles one to the beating it receives in the autumn, as the best means of at once compassing its present fruit, and making it bear more. The Wheat, the Oats, the Barley, and even the early Rye, have not yet become tinged with their harvest hues. They are all alike green; and the only change that can be seen in their appearance is that caused by the different lights into which each is thrown, as the wind passes over them. The patches of purple or of white Clover that intervene here and there, and in flower, offer striking exceptions to the above, and at the same time load the air with sweetness. Nothing can be more rich and beautiful in its effect on a distant prospect at this season, than a great patch of purple Clover lying apparently motionless on a sunny upland, encompassed by a whole sea of green grain, waving and shifting about it at every breath that blows."

The hay-harvest, which the same writer so beautifully pictures, has been greatly changed, both here and in England, since he wrote the following description:—"The Hay-harvest, besides filling the whole air with its sweetness, is even more picturesque in the appearances it offers, as well as more pleasant in the associations it calls forth, than *the* Harvest in Autumn. What a delightful succession of pictures it presents!

"First, the Mowers, stooping over their scythes, and moving with measured paces through the early morning mists, interrupted at intervals by the freshening music of the whetstone. Then—blithe companions of both sexes, ranged in regular array, and moving lengthwise and across the Meadows,

each with the same action, and the ridges rising or disappearing behind them as they go:

"There are forty *mowing* like one!"

What an attractive picture of healthy, happy labor, in the pure, fresh air, made fragrant by the world of flowers which are fed and fanned by it! Such a scene, undoubtedly, may be still witnessed around English homes, as it may in our own New England, but it cannot be denied that the introduction of labor-saving machinery has deprived rural life of some of its romance and charms. In the midst of the hay-harvest here, we may travel far and not see the "Mowers, stooping over their scythes, and moving with measured paces through the morning mists." Hand-mowing is aided by the morning dews, but it retards the machine. The *hoe* is now the implement in use while the dew is sparkling, instead of the scythe;—but when the dews are exhaled, and the grasshopper sings in the burning sun, then may be heard all over the neighborhood, the sharp *click, click,—click, click, click*, of the Mowing Machine, prostrating the standing grass at the rate of one or two acres per hour! spreading it as it goes! Then, towards night follows the Horse-rake, and the evening presents a village of haycocks with their white caps on, resembling an encampment of soldiers.

But the advantage is certainly on the side of the machine,—it does the work quick and well, saves a vast amount of human toil, and leaves us at liberty—if we but have the disposition—to walk leisurely in the living fields, or among the beautiful and instructive trees, and grow wise and happy in the contemplation of the wonderful developments everywhere around us.

JUNE is the Month of Roses—loveliest of all the Flowers. "What can be more enchanting to look upon than this newly-opened Rose of Provence, looking upward, half shamefacedly, from its fragile stem, as if just awakened from a happy dream to a reality! It is the loveliest Rose we have, and the sweetest—*except* this by its side, the Rose-unique, which looks like the image of the other cut in marble. *This* surely *is* the loveliest of all Roses—*except* the White Blush Rose, that rises here in the centre of the group, and looks like the marble image of the two former. You see, its delicate lips are just becoming tinged with the hues of vitality, and it *breathes* already, as all the air about it bears witness. Undoubtedly *this* is the loveliest of all Roses—*except* the Moss Rose that hangs flauntingly beside it."

Lovely JUNE—most fertile of all the Months! Now the whole tribe of Geraniums is out, and every passer by nips a leaf—rubs it between the fingers, and then throws it away. Pinks shoot up their hundred-leaved heads—Sweet Williams lift up their bold, but handsome faces, the Columbine dances to the breeze, the yellow Globe-Flower flings up its balls of gold into the air, the Lupines spread their wings for flight, the Mignonette begins to make good its pretty name, and the princely Poppy, the starry Marigold, the little Pansy, the pretty Pimpernell, and "the dear little blue Germander *will* spring up, unasked, all over the Garden, and you cannot find in your heart to treat them as weeds."

JUNE claims that its peculiar duties shall be duly attended to. We will not interrupt the train of thought just now indulged in by alluding to them here, but will endeavor to anticipate them, a few at a time, as we jog along from week to week.

NEW BOOKS.

HOLLY'S COUNTRY SEATS: containing Lithographic Designs for Cottages, Villas, Mansions, &c., with their accompanying outbuildings. Also, Country Churches, City Buildings, Railway Stations, &c., &c. By HENRY HUDSON HOLLY, Architect. New York: D. Appleton & Co. For sale by A. Williams & Co., Boston.

Within a few years, several excellent works on architecture have been published, so that there is really no good reason why any more awkward, inconvenient and unsightly buildings should be erected for the accommodation of either man or beast. Any of these to which we refer, may be purchased for less than three dollars, and if the person building only a thousand dollar house or barn should thoroughly study one of them, he would be quite likely to save, in the cost of construction, more than three times the cost of the work.

The work before us contains designs for almost every class of building, and with a cost ranging from $800 to $10,000. Any person about building will certainly find it for his interest to consult this, or some similar work.

PROFITS OF FRUIT CULTURE.—It is stated in an exchange paper that E. Lake, of Topsfield, Mass., gathered from one acre—of Baldwin and russet apples two hundred barrels, at four dollars, besides one and a half tons of marrow squashes and one hundred heads of cabbages, one of which weighed twenty-seven pounds; also that a lady in Gainstown bought eight acres of worn-out, stony land, at forty dollars an acre, and set it out in an orchard at an expense of two hundred dollars. She cropped it every year, cleared two hundred dollars a year, and at the end of six years after the purchase refused twenty-five hundred dollars for the field. There are hundreds of thousands of acres of land in our Northern, Eastern and Middle States, now stony, barren, worn-out and useless, which would yield a crop worth hundreds of dollars per acre, with a little enterprise and a small outlay on the part of the owners.

ORANGES.—The California *Farmer* states that a Dr. Strentzel has succeeded in raising excellent oranges in the open air in that State. Col. Warren has no doubt they can be produced in any part of the State.

EXTRACTS AND REPLIES.

FLAX CULTURE—HEDGES—COFFEE.

I notice that the inadequate supply of cotton has awakened the cultivators of the soil to the importance of raising a larger amount of flax. Napoleon the First, in his reign, saw the necessity of a larger breadth of land being devoted to that staple, and offered a gratuity of one million of francs to that producer who sowed the most acres and raised the finer varieties.

I saw one farmer that planted a hedge of hemlock to protect his newly set out orchard, and I should judge, by the thrift that the trees indicated, that he was amply repaid for his trouble.

I read in the books that the East India Company bought 2 lbs. and 2 oz. of coffee as a present for the King in 1664. It was first used to gratify the palate of the royal family; but ere long it became an article used in almost every family. In 1732, the duty on coffee was 2s. a pound. But those who now procure the pure and use it in preference to that which is better, cold water, grow! when it can be bought at the price which was exacted then as a duty. To those I would say that a few red oak acorns give to the rye coffee a better flavor. S. P. M.

April, 1863.

A CORN BARN.

I would like to inquire through the *Farmer* the best way to build a corn barn. Is the south side as good for drying corn as any? Would corn dry if husked and put into narrow bins, with grates on each side and bottom, with the bin raised a few inches from the floor, without standing to the outside of the room?

Keene, N. H., April, 1863. J. W. Nye.

Remarks.—There is no one particular form for a corn barn better than all others, to our knowledge. A cheap building, 15 or 20 feet long and 10 to 15 feet wide, is a good form. It is better that it should not be connected with any other building, and it should stand on posts, and every pains be taken to keep rats and mice out. In a building something like the one suggested, the bins may be on every side, if it is desired, and the corn will dry, and keep well, if it was ripe when it was put into the bins. The space between the slats should not be more than half an inch in width. Where the building was sufficiently wide, we have seen bins on the sides, and one made of slat work extending the whole length of the floor in the centre, and was informed that the corn kept as well there as on the sides.

HORSE PITCHFORK—APPLE WHISKEY.

Will you inform a subscriber to your valuable paper if a horse pitchfork, for unloading hay in barns from a load, can be purchased in Boston, and as to their being efficient and a labor saving implement? as I am to cut quite an amount of hay this year as per contract, besides my own.

Also, if apple whiskey can be made at a profit, if cider is $2 per bbl., and freight to New York 40 cents, owning a mill and power? Old Essex.

Remarks.—We have been expecting to publish an illustration of Palmer's Excelsior Horse Pitchfork, but as the engraving does not come, we will state that Messrs. Palmer & Wackerhagen, of Greenville, Greene county, N. Y., have the horse pitchfork, and will be likely to give any information asked for in relation to it.

We have no definite knowledge of the cost of making apple whiskey. Many years ago it used to be made by farmers in a very simple manner, and at small cost.

ROOTS FOR SHEEP.

Will you inform through the *Farmer* of the best and cheapest root to raise for feeding sheep, especially breeding ewes? One most conducive to the well being of the sheep and growth of wool. What quantity of the same may be fed to advantage as a substitute for hay and grain? R. P. L.

Harrisburg, Vt., April, 1863.

Remarks.—We think the cheapest and best root to cultivate for feeding to sheep is the *mangold wurtzel*. It is hardy, grows quick, is easily cultivated and harvested, and is palatable and wholesome for the sheep. It also yields large crops per acre. A variety of roots might be better, perhaps, such as an occasional mess of carrots, ruta baga, flat turnip, or the white or red beet. But the mangold is the root, in our opinion, mainly to be relied upon.

NURSERIES.

We have no means of complying with the request of "P. S.," of West Gloucester, in relation to the nurseries of the United States.

RAPID GROWTH IN A PIG.

I notice in the *Farmer* of the 4th of April, an account of a pig, slaughtered by Mr. How, of Gill, which, to say the least, is a marvel. At 9¾ months, say 285 days, it dressed 525 lbs.,—an increase of almost two pounds per day, from the day of its birth! I must acknowledge this exceeds everything I have heard of before, and I doubt its match is not often found. One and one-fourth pound is all I have ever been able to make myself, and 1¾ lbs. per diem the highest I have known of previous to this. Unwittingly, your typos did not tell a story, did they?

Salisbury, Conn. P.

SHEEP TICKS.

The best known preventive—a handful of corn and beans to a sheep a day, during the winter. Test it and report through the *Farmer*. No "patent applied for!"

I. W. S.

For the New England Farmer.

POTATOES—ORCHARDING.

Mr. Editor:—In passing from Pittsfield to Springfield a few weeks since, I was seated by the side of a venerable Shaker from Lebanon Springs. I took the liberty of introducing the subject of farming, knowing these people are skilled in the practice, and probably no class live more frugally nor more strictly within the means of their own earnings than do these Shakers.

I named to him the practice of our potato-growers on Long Island, as I have taken occasion to repeat in the *Farmer* the first four or five years. He believed in planting large potatoes in preference to small ones, but to cut off the tip or seed end, or to cut out the cluster of small eyes on the round potato, struck him very forcibly as the true principle of getting large potatoes. He said we shall not fail to try the experiment this spring, and to illustrate it, we will plant the small tips or eyes in one row, and the large pieces in another. This will be a comfortable way of sorting them.

Three to five eyes in a hill, two feet apart, is ample seeding. It will be found, the large vines bring the large potatoes. The seed end is fed out to the pigs in this region.

He interested me much in the story of an orchard. He said, I bought some apple trees of a nurseryman, ploughed deep, manured well, set out my trees and cultivated the ground for four years. The trees grew rapidly and the eighth year they bore well. He had occasion to call on the nurseryman about this time and went to see his orchard set out at the same time. But instead of finding it thrifty and progressive, it had scarcely

made any headway during the eight years. A sorry sight, said he, but how many such sorry sights meet the eye as we pass from farm to farm in our country journeys.

If anything gladdens the eye, even to a feast, it is the hill side orchard ranges, laden with fruit. How mean is a farm without its fruits.

Brooklyn, L. I., 1863. H. POOR.

For the New England Farmer.

WHAT IS THE MOST PROFITABLE CROP?

MR. BROWN:—Many of your readers in New England, in view of the increased demand which the future must press upon them, will give many a thought to the question, What is the most profitable crop I can raise the coming season?

The location of a farm must decide in many cases; as, for example, those in the immediate vicinity of cities will raise vegetables for market.

It has seemed to me that too much consequence has been given to the Indian corn crop, and that it is not the renumerative crop still so generally believed. The fact is, the times have changed, and farmers must change with them in some of their crops and methods of cultivation.

When our town was first settled, the corn crop was the staple. Plenty of fish were taken from the then noble river, a privilege since destroyed by a corporation dam miles below, and many planters put in a shad to a hill. No doubt the corn crop then, not only here, but over a wide region around, was the best they could cultivate. Corn was the simplest and most nutritious and convenient food they could procure. It still fills a large place among the supplies for man and beast.

It will be at once remembered, that in those early days of the first settlers, transportation of bulky products for any considerable distance was a thing almost impossible. What was needed for subsistence must be produced at home. But now we live in better days. A more numerous population, with abundant means, has covered the States with a net work of railroads, and opened the great West with its vast fields of inexhaustible fertility to the farmer. Have we an adequate idea of the richness of those prairie farms? Barns are built on the banks of streams that the manure may be got out of the way without expense. Barns are moved away from the manure in cases where long accumulations have made a formidable pile.

Wheat fields sometimes improve by several years cropping, as the stalk grows at first too rank to hold up the grain.

I have in my house an ear of corn raised by a relative in Nebraska. It grew out of the first turned sod. No manure, no hoeing. The work was simply to plough the land, "chop in" the seed, and team off the heavy ears.

Does it not seem, then, that the West connected with us by railroad and water, can furnish New England with corn cheaper than it can be grown here, as a general thing? Shall we continue to raise Indian corn as our chief crop, simply because it has been the best for our ancestors, to whom the West was almost unknown?

Corn is a very convenient article of freight. It can be moved in hot or cold, wet or dry weather. It can be stored in large quantities. It is changed from vessel to warehouse, and from thence to cars, in streams as if a fluid, by steam elevators. It is largely an article of exchange, and has been sent East in large quantities the past season to pay debts. No doubt more would be welcome.

Grain crops are exhausting to our lands. If abundant, they must depend on the most liberal supply of manure on a good soil. The fast traveling horse depends on the oat bag. The cow that gives so much milk has a well filled crib. We cannot squeeze out of our sandy, rocky soil, grain crops like the West without ploughing in a liberal dressing of manure. W. D. B.

Concord, Mass., 1863.

REMARKS. — Please tell what crop or crops would be better for a majority of Massachusetts farmers.

For the New England Farmer.

CULTURE OF SWEET POTATOES.

MR. EDITOR:—In the *Farmer* of Feb. 14, there is a communication from Mr. IVES, of Salem, giving an account of a yield of sweet potatoes the most remarkable of any that ever came to my knowledge, and which, I think, has some mistake, of which more will be said. Some time last spring a writer from Connecticut, I think, (I have mislaid the paper,) put an article in your paper, the purport of which was that he had tried sweet potatoes *once, and had seen the "elephant."* They were a failure, and he advised farmers not to try them. I think that it is modest in us, when we make an experiment, and it fails, to intimate that, possibly, as it is the first time, we did not know how to do it, or the soil or season might not have been good, instead of giving advice to others.

[A mistake occurred in Mr. Ives' manuscript, he stating that his ground measured *"three-quarters of a rod square,"* when he intended it to be just *one rod* more. We omit, therefore, what our correspondent says of that error.—ED.]

I think I am a pioneer in raising sweet potatoes in any amount, from slips of my own starting in this State. Having raised them steadily for seventeen years, perhaps my experience will have some weight. The first year was small doings—I saw the elephant; but although he did appear like a Goliath, I went forth to meet him like little David, and the third year he was subdued, and I got 75 bushels of excellent potatoes. Their fame began to spread, and the people desired me to raise plants for them. The fourth year 375 bushels, the next 400 bushels. By this time there was a perfect fever for slips, and I planted eleven barrels of potatoes in my beds to meet the demand; but that very year that such a great number of people had them, was the poorest that I have known. It was a failure. Reducing my beds, I have gone steadily on raising potatoes, and raising plants for those that know their *worth by experience.* They have their ups and downs like other things. Last year was a very good year for them; I raised over 200 bushels, but the year before they surpassed in flavor anything I ever saw; they tasted almost like a confection, and those that I put into my cellar kept until February, when the last were cooked, and not a sign of rot had been seen.

From my experience, I can safely say that in some sections of our State, the sweet potato is as

sure a crop as the common potato, and yields double the amount, say from two to six bushels for one hundred slips, while in other sections they may not do so well, for they are quite sensitive about the soil they are in. For instance: I have had a strip about twelve feet wide run across, say twenty ridges, with the tops looking the same, while the roots were like whip-lashes, with no tubers, yet on each side the very best of digging; no mortal eye could see any difference in the soil, nor was there any difference in the treatment. If I had tried a smaller experiment, all in that particular spot, what should I have seen?

The soil in general, for them, will lead me to speak of what I do not pretend to know much about; that is, geology,—but as an observer, I may know a "thing or two." If we look at the map of the United States (so called,) we shall see that New Jersey cuts off Pennsylvania from the ocean, the boundary between the Delaware River, running south. The Pennsylvania soil is not fit for the sweet potato, and the farmers do not raise them; but Jersey is very good. This strip is called the tertiary formation; after passing Pennsylvania it begins to widen, taking Delaware, Maryland, East Virginia, most all of North Carolina, and so on, widening to the Gulf, going in the same direction as the Alleghany Mountains. This is all low, not rising more than two hundred feet along the sea. The presence of shells gives evidence of this space having once been under seawater, and, as general thing, is all good for the sweet potato. Something of this kind of formation which tapers up to New York and is crowded from the main land, takes the Islands and then dips in at Rhode Island, taking the south-east part of our State, running out at Quincy, where it finds another rocky region; again it dips in above Boston, say at North Chelsea, and runs along the coast as far as Portland, and ends for good. I have observed that where I have sold plants in this section, below Boston, they have done well, generally, while around Boston in the section marked on Prof. Hitchcock's map as the Silurian and Devonian Rocks, they have not succeeded well. It appears that Mr. Ives is successful above that section where the geological formation is the same as it is this side, as has been described above. All will perceive that the above has only a general application.

From what I have seen, it appears plain that the sweet potato likes sandy soils, not much above tide water, or that have been formed by the sea; they will grow on the sands of the beach, and I am not sure but the best. Although we have much soil adapted to their growth, we lack length of season, but this can be made up in a great measure by special manures and skilful cultivation. By these we can come up with the slovenish farming of the South, where they have longer seasons of growth. Avoid rank soils and rank manures.

I am having a large compost heap prepared for them thus: In the fall I put eighty bushels of leached ashes into, say at a guess, one hundred horse loads of finely reduced peat; have it all thoroughly mixed; then I have another pile of fermenting bones, about one ton of crushed bones, and this, with about five hundred pounds of fish guano, will be thoroughly mixed with the other a few weeks before using.

They appear to want manure that is light and bulky, all concentrated in the ridge, and none ploughed in. These ridges I make four feet apart from centres, make them sharp; they will flatten by hoeing, and bring the tubers near the surface, which is a benefit. I set them from the middle of May to the middle of June. If there is danger of frost, cover the tips entirely with sand; this may be done in the most careless manner, and if left on for days before being removed, will not injure them. I let no other thing grow in their patch. I soften the soil after every hard rain, dig them soon as the frost kills the vines, and have found in so doing, my reward.

And now my advice to others is to try them in different places in their gardens, minding always that no shade comes over them when the sun shines; no matter about their having a breath of air, *only let the sun pour in on them.*

Kingston, March, 1863. CALEB BATES.

HINTS FOR THE SEASON.

MULCHING.—Many persons are not aware of the advantages to be derived from the practice of mulching or covering the surface of the soil with some sort of litter through the growing season. There are many substances suitable, but some are much better than others. The dead, dry grass that may be raked from the lawns about the house, is the best material we have ever used. It is fine and soft, and lies so close that the wind does not blow it about, nor allow weeds to grow up through it. A thorough hoeing about pear trees or grape vines in the spring, followed by a mulch of this dead grass, will not only keep weeds down, but keep the ground in a moist condition. Under these circumstances, the tree or vines will make a steady, even growth, and be well sustained throughout the whole season, if the soil is rich and loose. Last season we had about 100 pear trees hoed in April and mulched with this grass, and scarcely a weed appeared through it during the summer. The soil under it was kept moist and light, and the trees not only bore a fine crop, but made a good growth. The soil, however, was rich, and the spaces between planted with beans and kept well cultivated. Old hay, straw, brush cut fine, sawdust, or tan bark will answer the purpose. Meadow muck is also excellent where the land is light.

THE GARDEN.—Now is the time to give it shape, and make preparations for it to receive whatever seeds or plants we desire to introduce. Those farmers who have not given much attention to the garden, will be pleasantly surprised, upon experience, to find how much pleasure and *profit*, may be derived from a few rods of good, and well tended, soil. How many fresh, and excellent fruits and vegetables may be drawn from it through the entire summer and autumn. In no other way, perhaps, can the farmer do so much to relieve the women of that monotonous and ever-recurring la-

bor of providing for the table. If a good kitchen-garden can be entered and its rich products selected at will, the butcher, the baker and the grocers' bills will be greatly reduced under the administration of a skilful housewife. The Garden is a harmonizer, as well as economist. Sow, also, a few annuals and plant perennials, for they neutralize care and make the joys of life perennial. During these seven days, whose duties we are urging, do not neglect the claims of the Garden.

CALVES.—There are various modes of feeding calves, when taken from the cow at two or three days old, or when not allowed to suck at all. Our practice is, to let the calf suck three days, as we think it greatly benefits both cow and calf. At the end of this time the calf is taken away, the cow milked, the calfs head introduced into the pail, where the thumb of the left hand rises up above the milk. The mouth of the calf is guided to the thumb, when he seizes it and sucks it readily. In a day or two, skim milk may be introduced if desirable. We use tea made of sweet herdsgrass or redtop hay, mixed with a little new milk. In a few days, a calf will drink from one to two gallons at a meal of this tea. At the end of a week, a little corn meal may be introduced in the milk or placed in a trough before the calf, and at the end of three or four weeks, he will take a quart per day, without injury. Calves need ample and careful feeding while quite young, in order to secure a healthy and vigorous growth. They seem never to forget this care, and will bear neglect afterwards all the better for it, though neglect at any time is unprofitable.

For the New England Farmer.

BONE DUST.

Bone dust of the market, so far as I have discovered, is a very coarse meal made by grinding refuse bones fine enough to pass through a sieve of about one-fourth inch meshes. At least, so I found two barrels to be, which I ordered from market last season, for trial. Not being satisfied that I had better put it into the soil and wait from one to ten years to have it decompose, I carried it to a plaster mill to have it made quite fine. In the process the mill was filled with dust almost to suffocation; (they had probably been kiln dried.) To allay it, if it would, unground plaster was mixed with it, in proportion about one to one by weight, without much effect as desired. But both together proved an excellent compound to roll my buckwheat in previous to sowing; as much more adhered to it than either alone would, and enough to show its good effect as it came out of the ground, and through the season.

Upon a piece of land in too poor condition to produce a good crop of any thing,—which I had made fine for flat field turnips, I sowed said material at the rate of eight dollars' worth to the acre, and dragged it in. Here I had as large and smooth turnips and of as uniform size as I ever saw. In sowing this piece with the compound, I left two strips through the field, on which there were not turnips enough to pay for ploughing the land. It had a similar effect where I sowed it in drills with ruta baga seed. I did not have it in season to experiment with, in the earlier seeding of corn, potatoes and the like. WM. RICHARDS.

Richmond, March, 1863.

For the New England Farmer.

CURING COWS OF KICKING.

MR. EDITOR:—I was somewhat amused as well as interested, by an article upon this subject in the *Farmer* of March 21, from a correspondent at Strafford, Vt. I would like to inquire of Mr. Elery, what he does with his milk pail while holding on to one teat with his right hand, and slapping the cow smartly with the other? and especially when he catches the uplifted foot and holds it near to the body of the cow until she settles down into his lap! It seems to me the latter performance must require considerable strength and agility, to be done successfully, without spilling the milk or spoiling the pail. I would suggest if it might not be safe and better in bad cases, to strap up one of the fore legs, after the fashion of the famous horse-tamers? The cow would soon learn that it was impossible to stand upon two legs, that even three were not as good as four, and conclude to keep them all in their proper places.

But *prevention* is better than *cure*, and if heifers are treated kindly and gently when first milked, the bag bathed with milk or warm water, and something a little extra given them to eat, I have the impression that comparatively few will acquire the habit of kicking. A. C. W.

Leominster, March, 1863.

For the New England Farmer.

IS SHADE A CAUSE OF THE POTATO DISEASE?

Last year, when digging potatoes in my garden, I observed that those which grew in the shade of an apple tree, wilted much worse than those growing in the open sunshine. This suggested the idea that shade might be a predisposing cause of the blight, and I mentioned it to some of my neighbors. But no one seemed ready to agree with me, so I concluded to say no more about it until I made further trials.

This year, a small piece of potatoes grew where the wood-house shaded it a part of every day. At harvest time I found rotten potatoes as far as the shade extended, and scarcely one beyond, and the rot was worst in the rows next to the wood-house.

I also planted about half an acre, last spring, in my field, where there were no trees to make shade. I hoed them well, but late in the season the grass sprang up and grew rapidly. I commenced to hoe the ground again, but other business called me away before I finished it. When I dug the potatoes, I found them badly infected, but there were not more than half as many rotten ones where the grass was cut down, as where it was allowed to grow.

Now my theory is, that the grass, like the shade of trees, or of buildings, prevented the rays of the sun from striking the ground directly, thus preventing the free evaporation of the moisture, which, in hot weather, is exhaled from the earth, consequently too much stimulus was applied to the tubers.

If this be a correct hypothesis, it appears to me that planting the rows of potatoes at a considerable distance apart, would be beneficial, as it would allow more light and air to reach the roots of the plants. At any rate, I think all will concede that clean cultivation is, and the few experiments which I have made, indicate that shady situations are not suitable for the production of potatoes.

Will some other people relate their experience?

L. VARNEY.

Bloomfield, C. W., 4th mo., 1863.

REMARKS.—We planted an orchard with corn and potatoes last spring, where the trees were thirteen years old, and had made a good growth. Under each tree a square of land was occupied by eight hills of potatoes at the usual distances. Of course, these hills were mostly in the shade at all times of the day. Very few of the potatoes, however, were rotten—not any more than were found in another portion of the field where there were no trees.

For the New England Farmer.

AMONG THE GREEN MOUNTAINS.

MR. EDITOR:—Merry spring, the queen of sunshine and of flowers has really begun her reign, in spite of the occasional frosty insinuations of the winter king that he "still lives." The throne he was obliged to abdicate, and his fair and gentle successor now sways her mild sceptre over her willing subjects in new light and gladness,

Boreas' cold and piercing winds, it is hoped, are among the things that were, for the spring of '63, that we may enjoy sunnier skies and warmer days than those of the last few weeks. Cold, cold, cold, has been the remark of every observer till now; and the farmer, in particular, has been made to experience its unhappy results. Hay to the farmer just now, is like gold to the broker—at a high premium; and grain, oats in particular, is not by any means *dull*. Hay sells at $15 to $20 per ton; oats 60 cts. to 75 cts. per bushel, and other grains in proportion, excepting perhaps corn (Southern,) which is selling at $1,15 per bushel, and is by far the cheapest grain in the market for stock. Farmers and others short of hay, would do well to feed more corn, ground and mixed with cut hay or straw, than to feed all hay. Cattle and horses will do quite as well on feed prepared in this way, as they will on hay alone; and at present prices, it will make a saving in expense. To sheep, the corn may be fed in the kernel; if a few refuse beans are added, the value of the feed will not be diminished. Care should be taken not to overfeed, as too high feeding either with oats or corn, at this season of the year, tends to weaken and debilitate, rather than strengthen, both the sheep and lamb. A single handful of corn, or corn and beans together, or a half pint of oats, to a sheep a day, if fed regularly, as it should be, will show itself not unfavorably in the end. *Regular* feed is what tells to advantage.

SUGARING.—We have had none with us as yet to speak of. Some, perhaps the majority of farmers, have tapped their trees, and put things in readiness for the "first run," but I think it has not yet fully appeared. The weather seems changed; it is now warm and spring-like, and we will dare to hope it may favor the sugar-makers. The Vermonters should be sorry to be obliged to rely altogether upon the sugar-canes of Louisiana, (for a time at least,) or the West Indies, for our coffee fixings. 'Tis quite enough to have to pay double or treble the former prices for the coffee. We can economize, and we do do it, in this particular. Peas prepared at home, and added to a little of "Old Java", are just as good and palatable as a like preparation from a foreign manufactory. Give me the "pure" home-made—equal parts of good peas and the real Java in the kernel, properly roasted and prepared—with a sufficiency of our best maple sugar and rich cream, and any one else may have the "pure ground" or "hard times" coffee, that will pay for it, and welcome. What say you, Mr. Editor?

I had other thoughts to pen down in this letter, but I am already trespassing upon space and patience, and I will pass them by till another occasion.

I. W. SANBORN.

Lyndon, April 6, 1863.

For the New England Farmer.

HOW PENNIES ARE SAVED.

I do not wish to set myself up as a teacher of the art of agriculture, but I will say that some of us tillers of the soil, might, instead of taking time so easily after harvest, patch up our horse and cow stables, and protect our stock from the cold blast of winter. Besides the morality of the thing, there is a saving of dollars. I have in my mind's eye, a case of each kind. Two gentlemen of wealth each keep a cow; one has a light, warm stable: he has his cow carded, kept bedded, clear of manure, fed with grain and roots, and in cold nights blanketed. The other turns out his cow every day to breast the cold storms, and her appearance indicates that she never feels the card nor brush. The former says his yields a profit, the latter that his does not pay the expense. I have no doubt of the correctness of these reports, for the expense of the latter exceeds that of the former by one-fourth.

Some of us dilatory ones never take thought of our trace corn, until the time of its use, and at that time find that the mice and rats have looked to it. Recently I saw a different mode; wire strung across the corn chamber, and on those hooks of wire, some feet in length attached, on which was suspended the corn untouched by the race. Such taking care of little things is the penny laid away by the prosperous farmers, and those are the ones that have the easy days, always up with their work, and read the *Farmer*.

Cape Elizabeth, 1863. S. P. M.

A TRUTHFUL AND CHEAP BAROMETER.—Take a clean glass bottle, and put in a small quantity of finely pulverized alum. Then fill the bottle with spirits of wine. The alum will be perfectly dissolved by the alcohol, and in clear weather the liquid will be as transparent as the purest water. On the approach of rain or cloudy weather, the alum will be visible in a flaky, spiral cloud in the centre of the fluid, reaching from the bottom to the surface. This is a cheap, simple and beautiful barometer, and is placed within the reach of all who wish to possess one. For simplicity of construction, this is altogether superior to the frog barometer in general use in Germany.

ENGLISH WOMEN.

I have heard a good deal of the tenacity with which English ladies retain their personal beauty to a late period of life; but (not to suggest that an American eye needs use and cultivation before it can quite appreciate the charm of English beauty at any age) it strikes me that an English lady of fifty is apt to become a creature less refined and delicate, so far as her physique goes, than anything that we western people class under the name of woman. She has an awful ponderosity of frame, not pulpy, like the looser development of our few fat women, but massive with solid beef and streaky tallow; so that (though struggling manfully against the idea) you inevitably think of her as made up of steaks and sirloins. When she walks, her advance is elephantine. When she sits down, it is on a great round space of her Maker's footstool, where she looks as if nothing could ever move her. She imposes awe and respect by the muchness of her personality, to such a degree that you probably credit her with far greater moral and intellectual force than she can fairly claim. Her visage is usually grim and stern, not always positively forbidding, yet calmly terrible, not merely by its breadth and weight of feature, but because it seems to express so much well founded self-reliance, such acquaintance with the world, its toils, troubles, and dangers, and such sturdy capacity for trampling down a foe. Without anything positively salient, or actively offensive, or, indeed, unjustly formidable to her neighbors, she has the effect of a seventy-four gunship in time of peace; for, while you assure yourself that there is no real danger, you cannot help thinking how tremendous would be her onset if pugnaciously inclined, and how futile the effort to inflict any counter injury. She certainly looks tenfold—nay, a hundred-fold—better able to take care of herself than our slender-framed and haggard womankind; but I have not found reason to suppose that the English dowager of fifty has actually greater courage, fortitude and strength of character than our women of similar age, or even a tougher physical endurance than they. Morally, she is strong, I suspect, only in society, and in the common routine of social affairs, and would be found powerless and timid in any exceptional strait that might call for energy outside of the conventionalities amid which she has grown up.

You can meet this figure in the street, and live, and even smile at the recollection. But conceive of her in a ball-room, with the bare, brawny arms that she invariably displays there, and all the other corresponding development, such as is beautiful in the maiden blossom, but a spectacle to howl at in such an overblown cabbage rose as this.

Yet, somewhere in this enormous bulk, there must be hidden the modest, slender, violet nature of a girl, whom an alien mass of earthliness has unkindly overgrown; for an English maiden in her teens, though very seldom so pretty as our own damsels, possesses, to say the truth, a certain charm of half-blossom, and delicately folded leaves, and tender womanhood shielded by maidenly reserve, with which, somehow or other, our American girls often fail to adorn themselves during an appreciable moment. It is a pity that the English violet should grow into such an outrageously developed peony as I have attempted to describe. I wonder whether a middle-aged husband ought to be considered as legally married to all the accretions that have overgrown the slenderness of his bride, since he led her to the altar, and which make her so much more than he ever bargained for! Is it not a sounder view of the case, that the matrimonial bond cannot be held to include the three-fourths of the wife that had no existence when the ceremony was performed? And as a matter of conscience and good morals, ought not an English married pair to insist upon the celebration of a silver wedding at the end of twenty-five years, in order to legalize and mutually appropriate that corporeal growth of which both parties have individually come into possession since they were pronounced one flesh?—*Nathaniel Hawthorne.*

THE TOMATO.

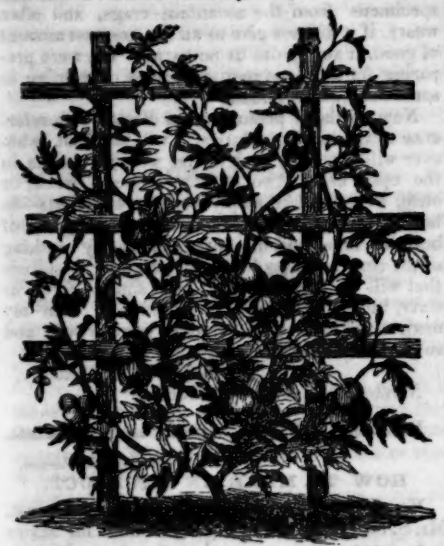
Few persons now are willing to dispense with the tomato. It is surprising how quickly it found its way into public favor. It is palatable, and wholesome, we believe, before it is ripe, as well as afterwards, and is easily preserved in various forms, so that it can be in use throughout the entire year. It contains a peculiar acid highly relished by most persons, and which seems to act favorably upon the system. It is a universal favorite. The beautiful illustrations which we introduce are from BURR'S Book on *Field and Garden Vegetables.* He says:

As early in May as the weather is suitable, the plants may be set in the open ground where they are to remain, and should be three feet apart in each direction; or, if against a wall or trellis, three feet from plant to plant. Water freely at the time of transplanting, shelter from the sun for a few days or until they are well established, and cultivate in the usual form during summer.

If sown in the open ground, select a sheltered situation, pulverize the soil finely, and sow a few

seeds in drills, as directed for the hot-bed. In May, when the plants are three or four inches high, transplant to where they are to remain.

In gardens where tomatoes have been cultivated, young plants often spring up abundantly from the seeds of the decayed fruit of the preceding season. These, if transplanted, will succeed as well, and frequently produce fruit as early, as plants from the hot-bed or nursery-bed.



Sufficient plants for the garden of a small family may be started with little trouble by sowing a few seeds in a garden-pan or large flower-pot, and placing it in a sunny window of the sitting-room or kitchen. If the seed is sown in this manner about the middle or 20th of March, the plants will be of good size for setting by the time the weather will be suitable for their removal.

"As the fruit ripens, it must be well exposed to the sun. There will be nothing gained by allowing a great many fruit to ripen."

A convenient, simple and economical support for the plants may be made from three narrow hoops,—one twelve, another fifteen, and the third eighteen or twenty inches in diameter,—and attaching them a foot from each other to three stakes about four feet in length; placing the lower hoop so that it may be about ten inches from the surface of the ground after the stakes are driven. The accompanying figure illustrates this method of training. It secures abundance of light, free access of air, and, in skilful hands, may be made quite ornamental.

Or a trellis may be cheaply formed by setting common stakes, four feet in length, four feet apart, on a line with the plants, and nailing laths, or narrow strips of deal, from stake to stake, nine inches apart on the stakes; afterwards attaching the plants by means of bass, or other soft, fibrous material, to the trellis, in the manner of grape vines or other climbing plants.

BUCKWHEAT FOR ORCHARDS.—D. C. Scofield, of Elgin, Ill., recommends, in the *Prairie Farmer*, to sow buckwheat in orchards every year, by the use of the cultivator, without plowing.

For the New England Farmer.

PUT IN THE WHEAT.

MR. EDITOR:—Your readers and subscribers should thank you most heartily for your leader on "Wheat," in last Saturday's *Farmer*. The practical utility of your argument must meet their approbation and bring conviction to their minds.

Differing somewhat from your statement of putting in "one acre" this spring, I would suggest three acres, if it were possible. Thinking your heart is so near the farmers', you will allow me to sprinkle in a few practical suggestions, such as to advise the sowing of warm, early lands; to manure well and plough it in, (not harrow in;) to soak the seed in salt pickle twelve hours, then rake it in wood ashes before harrowing it in. This application of salt pickle and ashes is highly fertilizing. The great point to gain is to force the crop to early maturity. We all know rust and blight come with dog days. Try and get ahead of them.

With two or three acres of wheat this spring and the same quantity in winter wheat, your largest farmers will be saved the expense of buying barrels of Western flour. The double advantage of this crop has no parallel in the other small grains. You will be sure of the spring or fall crop, and perhaps both.

The straw, in the vicinity of paper mills and in cities, will pay a handsome profit on the cultivation. In such localities, the grain is a clear gain.

The roots will soon go down to the manure if it is ploughed in. H POOR.

New York, April 17, 1863.

For the New England Farmer.

FARMERS' FAIRS.

MR. EDITOR:—Some time since, I noticed in the *Farmer*, an article respecting State and county shows, by a correspondent of South Acton, who thinks the farmers derive but little, if any benefit, from such gatherings, as they are generally conducted at the present day.

Perhaps this may be true so far as some of the older societies are concerned, which have been in operation for nearly half a century, and especially if they have pursued the same course or plan from year to year, until their proceedings have become, as it were, stale and stereotyped. But it seems to me the remark will not apply to societies which have been formed more recently, and have not yet accomplished the various objects for which all such associations are designed.

I fully agree with the views expressed in relation to "horse-racing," in connection with cattle shows. Though probably introduced to add interest and variety to such occasions, I think the practice should be discountenanced and condemned, as it has a tendency to attract and draw together a class of persons who had much better remain at home, and presents a strong inducement or temptation, to abuse and treat unmercifully the noblest of all domestic animals.

If some persons who are very fond of active exercise are disposed to perform a foot race, I suppose there can be no objection, because if any of the competitors perceive they are becoming "*blown*," or broken winded, they can retire from the track and recover their breath, not having any one upon their back or behind them with whip and spur to urge them onward, *nolens volens*.

The objection which A. makes in his communication to agricultural addresses being delivered by professional men, who, perhaps, have had no experience themselves in farming, probably will not be made a few years hence, as the ministers, doctors and lawyers of the coming generation will have acquired in their boyhood, at our "common schools," a thorough and practical knowledge of the science of "agriculture."

Much more might be said upon the subject of farmers' fairs, but I will close with a single (and perchance some will say, singular) suggestion. The farmers of a State, county, or even town, combine together and contribute more or less money for the purpose of forming a common fund, a portion of which is paid to those who raise the best cattle and horses, pigs and poultry,

Now, Mr. Editor, would it not be well for them to offer premiums for the finest babies, the best boys and girls, and thus not only add a new feature to their exhibitions, but also encourage the production of more perfect specimens of humanity?

Leominster, Dec., 1862. A. C. W.

For the New England Farmer.

LESSONS AWAY FROM THE BOOKS.

MESSRS. EDITORS:—In my communication of Feb. 16, I proposed giving you a statement of my attempts to instruct my pupils, in Agricultural pursuits, *without books*. My school was large, and studies various, of course, but still, I found hours, every week, for miscellaneous instruction, such as I thought adapted for preparing my pupils the better to comprehend their prospective course of school lessons. This instruction was given in the form of conversations on various topics—as, for instance, the habits and customs of different nations and tribes of men, their different institutions, laws, religions and governments. History of discoveries of new continents and countries;—Outlines of our own history,—Biography, Whale-fishery, &c., &c. But whatever topic was introduced, whether the oil wells of Pennsylvania and Kanawha,—the great coal fields of the Western States,—the copper regions of Lake Superior,—the great Red River of the North, or the gold diggings of California, we always had attentive listeners. "But by doing so," inquires my anxiously-concerned fellow-educator, "did you not take off the minds of your pupils from their *regular daily exercises?*" *To be sure I did*, and that was the very thing I *wished to do*. Tired with enthusiasm, their mental energies on the stretch so many hours in the recitation room they should have the string cut, the bow relaxed, and all the better it would carry for it the next day.

I now had the attention of my pupils, and the moment the season would permit, we were abroad in the open fields for knowledge. Here we learned the names and characters of the simple minerals which enter into the composition of the common rocks. Here we observed the characteristics of the great Granitic and Gneiss formations, which appear to constitute the foundation on which all the other masses of rocks and soils rest. Here we tried to comprehend something of the wonderful theory of the earth, by examining the evidences which have led to the belief of a great central mass of melted matter which has forced up mountain ranges, and which gives action to the volcanic fires. Here, too, we learned that the *soil* on which we tread, and which sustains the growth of the vast forests,—the shrubs, plants, grains and grasses which clothe and beautify the earth, consists mainly of the minute particles of pulverized rock. The book which we were studying was the great, full volume, in fair type, which lay along every pathway we trod,—and although we returned from our rambles pretty heavily weighed down by our full haversacks of mineral specimens from the mountain crags, and often weary, if it did not give us all the greatest amount of good, it surely did us no harm. We were preparing for a full, systematic course of training in some subsequent terms.

Now, without presuming to dictate with reference to the teacher's duties, I will say that whoever will try some such course with his pupils in the open fields, two or three times a week, or once, even, will be amply paid for his efforts—in health, in happiness, in invigorated energies, of both his inner and his outer self, to say nothing of the consciousness he has of adopting a culture that will ultimately yield, not simply forty or sixty, but a good round hundred fold! In my next, I will endeavor to give you the sum and substance of just one single out of door lesson.

A TEACHER ABROAD.

Northampton, March 16, 1863.

REMARKS.—We shall look for it with interest.

For the New England Farmer.

HOW TO MAKE AN AQUEDUCT.

MR. EDITOR:—In the *Farmer* of the 14th inst. Mr. S. Stanford, of Irasburg, Vt., wishes for advice as to constructing an aqueduct for conveying water of seventy-five feet head. He wishes to know whether it would be better to use logs, (and if so, of what kinds of timber,) or mortar made of hydraulic cement and sand. I think it would be better to make it of logs, as the pressure of the water would be so great,—over 32 lbs. to the square inch,—or for a bore of one, two and three inches, respectively, in diameter, the outward pressure would be more than 1200, 2400 and 3600 lbs. to each foot of length.

As to the kind of timber, I think pine one of the best. Spruce or hemlock would answer. They should be unseasoned, and the bark taken off. To cause them to be more durable, lay them deep in the ground,—say five or six feet, and puddle around them with clay. As to connecting such logs, I think a good way is to saw the ends square across; then, to prevent the ends from splitting, in coupling, use bars made of thin iron, and drive them into the end of the log—one of its edges sharp, and in diameter about one-half that of the log. For coupling the ends of the logs, use cast iron tubes,—the bore the same as that of the logs, and in length a little more than three times the diameter of the bore,—the outside tapering from near the middle to their ends, with a screw thread cast on the outside of each end,—one right handed, the other left handed; the thread to lean towards the ends of the tube like the screw of a twisted augur, that is made to bore lengthwise of wood. When the logs are placed lengthwise in the ditch, end near to end, these connecting tubes can be screwed in with "pinch-tongs," clasping these tubes around at the middle of their length.

AMOS FISH.

Bethlehem, N. Y., 1863.

For the New England Farmer.

ABOUT APPLES.---No 1.

The apple surpasses in value every, if not all other fruits in our climate. In some parts of the earth, the date, the grape and the banana occupy a place perhaps more important than the apple occupies among us. In the United States, the apple thrives much the best north of 36° 30′. South of that line there are few good apples. They are generally small in size, and of inferior quality. Apples evidently affect a free soil. Good varieties do not venture into the dominions of King Cotton. They refuse to compete with the orange and the fig.

Good varieties are almost unlimited in number, and are constantly increasing. Under skilful cultivation, it is not impossible that good varieties may be produced that will succeed throughout the wide range of climate found on this continent. Good apples as the Northern Spy, Bailey's Spice, and others are now produced in Northern Vermont and in Canada. Good varieties are being produced in Missouri and in Western Texas.

My belief is that the method now pursued, of transporting trees to a great distance from the climate in which they are raised, will not be found the best method of propagating durable and fruitful trees. I think the stocks should be grown in the soil, or at least, in the climate in which they are to remain. Grafts may be transported and inserted into the growing stocks with better hope of final success.

Perhaps no fruit is more dependent upon climate and soil for its qualities, than the apple. A good Northern variety that requires to be kept three or four months to mature its juices, and then has a fine, rich flavor, carried to the sunny South, becomes mellow as soon as it is grown, loses its rich flavor, and becomes flat and insipid. Two Baldwin trees, one growing upon a clay soil, and the other upon a warm, sandy loam, will yield very different apples. Cultivation has not only multiplied the varieties of apples, but has greatly improved their qualities, and wonderfully increased their size.

There is an old fable in which an idle person lying under an oak tree, is represented as finding fault with the arrangements of nature. He did not think it right that pumpkins should grow upon a vine creeping on the ground, while the sturdy oak should produce fruit no larger than an acorn. Just as he had arrived at this sage conclusion, a falling acorn struck him upon the head. The question immediately occurred to him, if pumpkins grew on oaks, what would now be the condition of my head? On looking at some of the specimens of apples exhibited at our annual fairs, the question very naturally presents itself, whether the danger would be greater to one reposing under the shade of an apple tree, if it produced pumpkins, for certainly some of the large apples are equal in size to small pumpkins.

By the past generation, the quantity of apples was more regarded than the quality. A large portion of the apples then raised was made into cider. They were much less valued as food for either men or beast. The present generation has learned that the apple is a valuable article of food, and this has led men to seek the best varieties and to improve them by cultivation. Immense quantities are now raised for the market, and only good varieties are in demand, so that cultivators are stimulated by interest, as well as by taste, to improve the qualities of the apples they raise. The number of apple trees, within twenty years, has increased in the country by thousands and millions. In 1855, the value of apples in Massachusetts was reported at about $1,300,000. Since that period, the number of trees that have come into bearing have greatly increased their value, and the crop of apples now cannot be much less than $1,600,000. Since the use of steam has shortened the time occupied in voyages, apples may be transported with safety to distant places. They have consequently become an article of commerce. They are carried to several ports in Europe, particularly London. They are carried to the West Indies, and to the Northern ports of the United States, at all which places they command high prices.

The clear atmosphere and hot sun of our autumns, produce apples much superior in flavor to those grown in the cloudy atmosphere and moist climate of England. The same climatic influences render the corn crop of this country much better than that of England. Indeed, the same conditions of soil and climate that favor the growth of Indian corn, are favorable also to the growth of apples. Apples have been known from the earliest period to which history extends. I am not prepared to defend the proposition that it was an apple of which Adam and Eve partook in the garden of Eden, although Milton has given to it the sanction of his great name. But they were among the earliest fruits of which we have any knowledge. They were cultivated in the gardens of Damascus, and their praises were sung by the Oriental poets. They gave the name of Elmataghi, the apple mountain, to Mount Adorcus in Galatia. In an Epithalamium, or poem upon the occasion of the marriage of an Eastern Prince, that has come down to us, the bridegroom is made to compare the breath of the bride to the aroma of apples. They were cultivated in Greece and Italy. They have been handed down to us with the grape and the peach. In our climate they have found a habitat peculiarly fitted to them, where they can develop all their good qualities in a higher degree of perfection than they have anywhere else. No apples are so highly esteemed in Europe as American apples. A soil containing both lime and potash is necessary to the perfection of the apple. They grow large and fair in limestone soils; but the inferiority of their flavor betrays the want of potash. Both these alkalies are found in a granite soil.

THE BEET AS A FORAGE CROP.—No farmer who desires to experiment in the production of the sugar beet should be deterred from it by the fact that there is no immediate market for it. For although the facilities for manufacturing will probably keep pace with its production, yet if they do not, no better forage crop can be grown. It will be as eagerly sought for and relished by stock as the sweet, green sorghum.

THE course of a true woman is that of the gentle streams, which, without cataracts or noise, come softly down from their secret fountains in the hills, and indicate their presence only by the deeper verdure of the meadows they water and the sweet flowers that fringe their borders.

EXTRACTS AND REPLIES.

THE ONION MAGGOT.

Much has been said and written on the ravages of the onion worm; but Mr. Emerson nor Mr. Proctor seem to find an effectual remedy. I have no doubt that one of the most simple things, available to us all, will prevent that great evil. If, when the onion seed is sown, a small quantity of superphosphate of lime is sown with it, and more put on when the plant is about two inches high, I think there will be no complaint of the destruction of onions by the worms. I recommended it to Farmer Jones, several years since, but he omitted it until his onions were badly eaten. About the 20th of June, Mr. Jones told me that he must plough up all his onions, as they were so badly eaten that his crop was ruined. I again recommended the superphosphate of lime, and he put it on that day; the result was that it put a stop to the ravages of the worms; no more were eaten, and he thinks that if it had been put on earlier, it would have secured the whole from the ravages of the maggot.

July 23, 1859.

Since writing the above, I have put the superphosphate to the test, and find that it will prevent the ravages of the maggot in the onion, without a doubt.

Brookline, April, 1863. S. A. SHURTLEFF.

FOWL MEADOW GRASS—ASHES AND NIGHT SOIL.

I have four or five acres of meadow, with a running stream through it; it has a hard, gravelly bottom, so that I can go all over it with a team. What I wish to inquire is, which is the best way for me to get it into fowl meadow grass? Must I plough it, or put on sand or loam and sow my seed on that?

Ought I to mix ashes with night soil? I have (for the want of anything else) put all my ashes into my vault. Some tell me I have lost my ashes by so doing. Is it so? A SUBSCRIBER.

REMARKS.—Plough it, by all means; if you can, add a little fine manure, and sow your grass seed. If the meadow is black muck, a topdressing of sand will be useful.

It is said that the alkali contained in ashes will set the ammonia free, which green manure contains, and then it flies off and is lost. Good loam would be better than wood ashes, and what is better still, is some of the muck from your meadow. Throw out some, pulverize and dry it, and if a bushel is applied to the vault once a week, you will have double the quantity of manure and *no odor*.

ABOUT HEDGES.

What kind of a hedge is best adapted to our climate, and where can I procure the seed or plants,—also the time for planting the seeds and the setting out of plants? How should the ground be prepared, and what the manner of procedure with the plants? The location is the sides of the road; soil light, rather dry; want some kind that will turn cattle, and will be durable. SUBSCRIBER.

Ashby, April, 1863.

REMARKS.—The *Buckthorn* is handsome, grows rapidly, and is clean, but will not keep out cattle. The *Three-thorned Acacia* will keep out cattle and boys, but grows rather open, and without the graceful beauty of the Buckthorn. Consult WARDER'S "Hedges and Evergreens."

HORSES AND SHEEP.

I have a young horse, and sometimes after using him, when I unfasten the check rein, a small quantity of white matter will run from his nostrils. He seems healthy, with this exception, but in the summer has a humor, which comes out in little bunches over his body, disappearing when the weather becomes cool in the fall. Can you tell the cause and a remedy?

Have you noticed a disease among sheep, the symptoms of which are a cough and running at the nose. My sheep were seriously affected with it during the dry weather of last summer, and some have not yet recovered. They are also troubled with ticks. What will kill the ticks without injuring the sheep?

Martha's Vineyard, April, 1863. A READER.

REMARKS.—The horse is evidently considerably unwell, and needs careful examination and prescription from some person acquainted with the diseases of horses. It is something more than a common cold. Perhaps reading MAYHEW'S Illustrated Horse Doctor, or "DADD on the Horse," might save you fifty dollars.

Purchase the "*Extract of Tobacco*," and follow directions that come. See advertisement in *New England Farmer*.

CULTURE OF THE CURRANT.

No fruit gives a more generous return than the currant; and though it will grow in almost any soil, yet, to have really fine fruit, the ground should be well prepared by bountiful manuring, with well rotted stable manure, and deep and thorough pulverization.

In planting, the roots should have plenty of room that they may be spread out in their natural position, and the earth carefully drawn around them, so that after the ground is settled, they will be no deeper than when they stood in the nursery. No plant or shrub suffers more from cramping the roots and deep planting than the currant. The planting may be done either in spring or fall; if in the latter season, a small mound of earth should be raised around the bush as a protection against wind and frost.

This fruit requires much more room than is generally allowed to it. For large plantations the rows should be five to six feet apart, and the bushes three to four feet apart in the rows, this will admit of the horse cultivator without danger of rubbing off the fruit.

Mulching with long straw manure or fermented sawdust, is a cheap way of keeping down the weeds and the ground loose. If the bushes are not mulched, they should be ploughed two or three times every season, that the ground may be kept loose, and the weeds kept down; and in the fall, whether mulched or not, a good supply of well rotted manure should be placed around the bushes, to be worked in in the spring.—*Exchange.*

A NOVEL ATTACHMENT.—A gentleman in Springfield, Mass., writes to the *Albany Cultivator*, that he bought a Berkshire pig, about six weeks old, and put it into a pen, from which it escaped, and nestled in the straw of the cow stable, where it was suffered to remain. In a few days it was noticed that the usual quantity of milk given by the cow was decreasing. The pig, however, grew finely, and the two animals lived in peace. Happening to enter the stable one evening, the gentleman found the pig quietly nursing. On separating them, it was found that their mutual attachment was quite strong—the cow for many days mourned as for the loss of a calf.

PRICE OF FARMS.—The Genessee *Farmer* says there is a great movement in real estate in that section, and that the price of farms is advancing rapidly

RAISING TOMATO PLANTS.

A correspondent of the *Genessee Farmer* gave a plan of raising early tomatoes in the house, which a friend informs us he has tried with excellent results. It is simply to take some turnips, hollow out the inside, and fill them with fine soil. Two or three seeds are sown in each turnip, so as to secure one good plant in each. The rest must be pulled out. He usually puts the turnips in a box and fills the interstices with soil to keep them steady and moist. He keeps the box in his kitchen. Of course, the plants should have all the light you can give them, and should not be too near a stove. The great difficulty in growing plants in a room, is, that the atmosphere is too dry. The leaves should be repeatedly sprinkled with water, and the soil kept moist, but not too wet.

When the plants have attained a good size, and the weather becomes milder, they should be placed out of doors on warm days, and otherwise "hardened off" before setting out in the ground.

The plants, turnips and all, are set out in the ground without disturbing the roots. The shell of the turnip soon decays, and the tomato grows "right along."—*Exchange.*

AMERICAN PURPLE EGG PLANT.

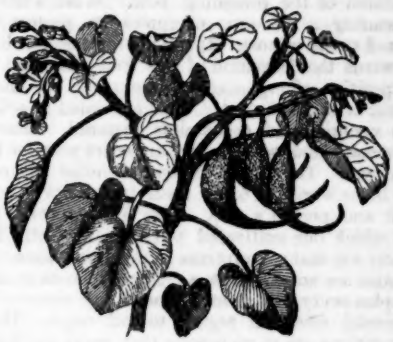
Those persons who have eaten a slice of well prepared egg plant at the dinner-table, after a forenoon of exercise in the open air, will remember its deliciousness, and thank us for presenting this

beautiful engraving. It should be started in a hot bed, or may be successfully started in the kitchen, in any box or pot that will hold the soil. From the middle of May to the 10th of June, according to location, the plants may be transplanted, and ought to be protected a little for a few days and nights, and then they will go on vigorously. They require a light, generous soil and clean cultivation. It has violet flowers in June and July, which are succeeded by fruit resembling in size and shape an ostrich egg, though it frequently attains a size many times larger.

In cooking them, the slices are cut transversely, about half an inch thick; press out as much of the juice as possible, and parboil; after which, fry the slices in batter, or in fresh butter in which grated bread has been mixed; season with pepper and salt, or sweet herbs, to suit. The seeds require a good supply of moisture and a pretty high degree of heat in order to make them germinate.

THE MARTYNIA, OR UNICORN PLANT.

This cut, as well as that of the Egg Plant, we are permitted to use by the Publishers of BURR'S *Field and Garden Vegetables.* Mr. Burr describes it as a hardy, annual plant, with a strong, branch-



ing stem. The leaves are large, heart-shaped, downy, and of a peculiar, musk-like odor, when bruised. The flowers are large, bell-shaped, somewhat two-lipped, dull white, tinged or spotted with yellow and purple, and produced in long, leafless racemes, or clusters; the seed pods are green, very downy or hairy, fleshy, oval, an inch and a half in their greatest diameter, and taper to a long, comparatively slender, incurved horn, or beak.

The Martynia is of easy cultivation. The seeds may be sown in April or May, in the open ground, where the plants are to remain.

The young pods are the part of the plants used. These are produced in great abundance, and should be gathered when about half grown, or while tender and succulent; after the hardening of the flesh, they are worthless. They are used for pickling, and by many are considered superior to the cucumber, or any other vegetable employed for that purpose.

The Martynia has another recommendation in the pleasant—although somewhat odd—appearance it has in the garden. It requires considerable room, because it branches out a good deal. It has little resemblance to any other garden plant.

WHY are nails designated by the terms *sixpenny, eightpenny,* &c.? In Sheffield, England, where immense quantities of nails are manufactured, they used to be sold in small quantities by the hundred; and the terms *fourpenny, sixpenny,* &c., referred to such nails as were sold at fourpence, sixpence, &c., per hundred nails. The length of the nails of that day was exactly the same with nails that are now known by those designations.

For the New England Farmer.

ABOUT APPLES—No. 2.

There are several questions by which the cultivators of apples seem at present to be specially exercised. They are important questions. The first is, Can trees be made to bear every year? The second is, Can trees which have the habit of bearing on one alternate year be made to change their habit, and bear on the other alternate year? The third is, What is the best method of cultivating an orchard after the trees have arrived at a bearing condition?

Fruit buds, from which the crop of any one year is produced, are prepared by the tree in the autumn of the preceding year. When a tree is maturing a full crop of apples, its powers are taxed to the utmost. It can appropriate but little towards the formation of new fruit buds, and the deposition of organizable matter for the nutriment of another crop. Time is wanted to collect its energies and accumulate material. Most of our cultivated trees require an entire year for this purpose. Thus they become biennial bearers. In other words, it takes them two years to work out and perfect a crop. This is the general law to which our cultivated trees are subject. But there are many exceptions to this law. Some varieties are annual bearers. Many trees bear a few apples every year, among those which observe the biennial rule with regard to full crops. These exceptions are so numerous that many are led to inquire if the two years' rule is necessary at all. The question may be put in another form. Plants as well as criminals are subject to habit, and habit may spring from natural constitution, or it may be acquired. Is the biennial habit of apple trees natural, or is it the result of cultivation? If it is natural, it will probably be impossible to change it. If it is an acquired one, it may possibly be changed by allowing trees to mature only a certain amount of fruit, just so much as they are able to carry, while they are at the same time providing resources for a succeeding crop. But if this should prove possible, the question would at once arise, is not one full crop better than two small ones? I will not discuss this question further. I will only observe that any one disposed to try an experiment on some tree favorably situated, must expect to continue it several years before any satisfactory result can be reached.

I have said that most of our cultivated trees have the habit of bearing on alternate years, and it so happens, unfortunately, as most of our cultivators think, that most of them bear on the same year. Consequently, on one year we have a great abundance, and on the succeeding year, very few. Now if the habit of a portion of them can be changed so that they will bear on the other alternate year, we shall have a good supply every year.

Various attempts have been made to effect this desirable result. It has been recommended to take off all the blossoms of a young tree on the year on which we do not wish it to bear, with the view of leading it to bear on the succeeding year. And I think it quite possible that perseverance for several years might, in some instances, be attended with success. Perhaps the habit of biennial bearing is not stronger in any apple tree than in the Baldwin, and it so happens that most Baldwins yield their crops in the even years. Such trees are especially valuable, because in the odd or scarce years, apples bear a much higher price. Attempts are being made to get a crop on the odd years, by setting grafts from the trees which bear on the odd years into trees which have the habit of bearing on the even years. The results which have been attained by this method, although it seems a promising one, do not seem thus far to have been very satisfactory, at least so far as my observation extends. In one or two instances they have been reported highly so. When a graft with one habit is thus married to a stock with a different habit, there must be a struggle for the mastery. Which shall prevail time only can decide. Perhaps in some cases the stock will prevail, and in others the graft. A gentleman who is cultivating apples largely, and who is trying the experiment, told me a few weeks ago that his grafts obviously showed a tendency to follow the habit of the stock into which they were grafted. In making the experiment it is important that the grafts should be taken from trees which have the habit of bearing on the odd years, well confirmed,—that it should be a natural habit, and not the result of accident. I think experiments with relation to this question should be made more extensively than they have hitherto been.

Our fathers were in the habit of setting apple trees on the headlands around the borders of their fields, by the roadsides and in their pastures. But we have adopted a different method. On most of our farms a portion of the best land is devoted to an orchard. It seems to be agreed on all hands, that, while trees are young, it is necessary to keep the soil under constant cultivation. The trees then interfere but little with the hoed crop. Almost as much corn or potatoes is obtained as if there were no trees growing on the ground. But if the trees are set at the usual distance apart, in a few years they shade nearly the entire surface, and their roots fill the soil, and now the corn and potatoes will not yield sufficient to pay for the seed and labor, and besides it is difficult to work among the trees without injuring them. What is now to be done? Shall the land be given up wholly to the trees and kept cultivated for their sole benefit? If they gave us a crop every year, the case would be quite different. Now we get a crop of apples only every other year, and nothing in the intervening year. But grass will grow in the shade where the soil is good, better than any other crop, and is perhaps our most valuable crop. If hay grown in an orchard is not of quite as good a quality, it may be nearly as much in quantity as though there were no trees on the ground, especially if it gets an early start before the trees have fully put on their foliage. The question now is, may not grass be grown in orchards where the trees are so large as to shade the ground, and at the same time the vigor and health of the trees be maintained by means of topdressing, and thus a valuable crop be obtained from the land every year?

This question is now being discussed with much interest by many farmers who appropriated a portion of their best land to an orchard fifteen or twenty years ago. Its solution may lead to a change in the method of managing our orchards. At the present prices of apples, say forty or fifty cents a barrel, on the trees, and that only every other year, it becomes a serious question whether the land cannot be more profitably occupied, and

whether our fathers were not wiser in planting trees upon their borders, where they interfered but little with other crops, than we have been in appropriating so much of our best land to them? But if experience shall prove that orchard land can be laid down to grass, and by the same amount of manure, used as a topdressing, which we now use in cultivating them with hoed crops to little profit, both the trees and grass can be kept in good condition, then we shall be encouraged to persevere in selling and cultivating apple trees. An orchardist of large experience practiced and recommended the following rotation of crops as suitable for an orchard. 1st year, Plow, manure and plant potatoes. 2d year, Manure and sow oats and clover. Cut the oats as a forage crop. 3d year, Cut the clover and plow in the fall. 4th year, Plow and plant potatoes. Thus the ground is manured two years out of three, and a tolerable crop of potatoes taken off the first year, and a good crop of forage the two following years.

I have discussed these questions very briefly. The remarks I have made are intended to be suggestive rather than exhaustive. J. R.

Concord, April 16.

For the New England Farmer.

ABOUT CORN BARNS.

MR. EDITOR:—I noticed in your paper recently, an inquiry from Mr. J. W. Nye, in regard to corn barns, and I will endeavor to give him some idea of the way we build them here in Vermont, a few miles north of Keene.

We have some in our vicinity built in the following manner: Size of building about 20×26 feet, height of posts 15 feet, with a second floor, which gives eight feet, lower story, and seven feet, upper story. We have corn cribs on two sides and one end, leaving one end for doors on each story and stairs. On the second floor, leave a space about four feet square in the floor for the threshing rack, which is made of two inch maple slats sawed beveling, and put in three-eighths of an inch apart at the top, so as to leave a crack just large enough to let a kernel of corn pass through and retain the cobs on the upper floor, while the corn passes through to the lower floor. Or some have a tier of grain bins occupy the north side of the lower story, instead of having the cribs extend on all sides, as far as the south side. We consider the south side preferable by all means for drying corn.

Such a barn I consider better to be set on posts, and away from other buildings as far as rats are concerned. I like the way of raising so as to have a cellar underneath for storing carts, &c., at will. If Mr. Nye, or any other of your subscribers wish to know more on this subject, I shall be very happy at any time to give them all the information I can through your valuable paper, or by private correspondence as suits them best.

Rockingham, Vt., 1863. H. E. ADAMS.

REMARKS.—This subject is an important one, and we are glad to find it receiving attention, as a good deal of the corn raised continues to be housed in a wasteful, and, frequently, in a most filthy manner—the room in which it is kept smelling more like some receptacle of cast off rubbish, than a storehouse of the golden corn. Our correspondent is very obliging, and has done good service to the farmer already in this communication.

For the New England Farmer.

NOTES FROM MY DIARY.

6th Mo., 27*th*, 1862. Finding the yellow bugs destroying my squash vines, I sprinkled them well with a solution of green cow dung and water, made quite thin. One application stopped their ravages.

8*th Mo.*, 10*th*. Passing by a piece of beans to-day, I find them dying. Upon examination, I find the joints of the leaves and stalks covered with a white mould, which rots the vines. A small spot on the same piece of ground, was similarly affected last year, but I supposed the wet weather was the cause. The weather is now very dry, so I have supposed another cause. There is a heavy growth of vines, and the weather very hot, and I am of the opinion that the beans are decaying from want of air, for the diseased vines are in the centre; those near the outside are healthy. Am I right?

9*th Mo.*, 16*th*. Pulled white beans. The pods were white, but not shrunk; I pulled them rather than to risk a frost upon them. In a few days I shall draw them into the barn, spread them on poles over the floor, and let them remain till winter.

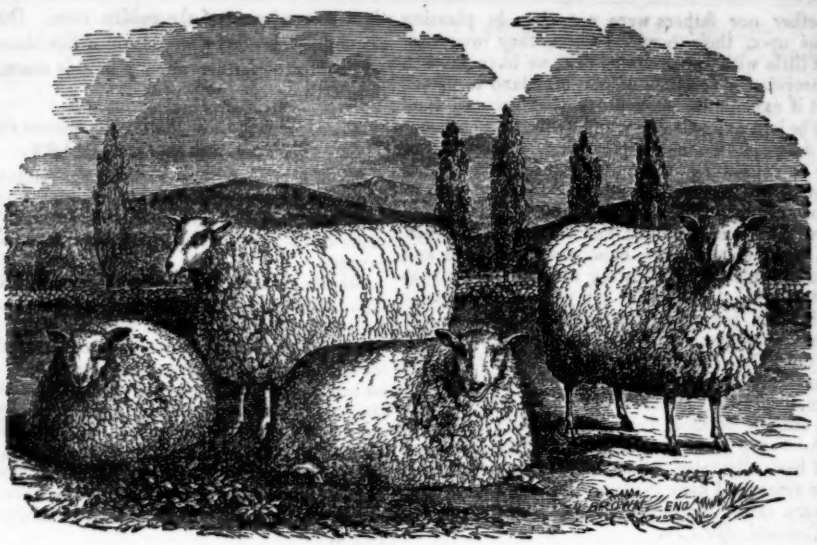
(*Mem.* I have threshed them this winter and find them very fine.)

10*th Mo.*, 1*st*. Commenced picking my apples. The last two years I have picked them about this time, and I never had fruit keep better. I put them in a cool place until cold weather. I am convinced that an apple picked before it is entirely ripe, will keep best in winter. Try it.

4*th Mo.*, 4*th*, 1863. I buried my cabbages last fall, as usual, by placing them heads down in a trench one foot deep, and wide enough to allow two heads to stand side by side. I laid two small poles in the bottom of the trench, placed the heads upon them, gave them a good covering of pea straw and a light coat of earth. I opened them to-day, and found the cabbages in good condition; some had grown so as to burst the heads. Whether wintered in the ground, or in the cellar, the roots should remain on. L. VARNEY.

Bloomfield, C. W.

ICELANDIC "SKIER."—Their daily food is taken cold, and consists chiefly of raw, dried stockfish and "skier." The latter dish is simply milk allowed to become acid and coagulate, and then hung up in a bag till the whey runs off. In this form it is both nutritive and wholesome, being more easily digested than sweet milk; while, to those who take to it, it is light, palatable and delightfully cooling. Milk is prepared in this way by the Shetlanders, who, in the first stage, call it "run milk," and when made into skier, "hung milk." The same preparation is made use of by the Arabs, and it is also the chief diet of the Kaffirs and Bechuanas at the Cape. Our idea, that milk is useless or hurtful when sour, is merely an ignorant prejudice. Those who depend for their subsistence chiefly on milk diet, and have the largest experience, prefer to use it sour, and medical authority endorses their choice.



FOUR COTSWOLD EWE LAMBS.

The lambs figured above were bred by and are the property of Charles Corliss, of "Poplar Lawn," Haverhill, Mass. They were exhibited at the Essex Agricultural Society show, held in Georgetown, September 30, and October 1st, 1862, and were winners of the premium offered by the society for the best lot of lambs.

At a recent meeting of the Central Farmer's Club, at London, Mr. Charles Howard delivered an address on the subject of "The *Merits of Pure Bred and Cross Bred Sheep*," in which he mentioned the established breeds. In the course of his address he said "the Cotswolds were one of the oldest of the established breeds. They were originally heavy, coarse animals, with a thick, heavy fleece, well adapted to the bleak, unenclose Cotswold hills. They are now very hardy, and will thrive well in almost any situation, and produce a great amount of wool and mutton at an early age. They sometimes reach 86 pounds to the quarter. The average weight of an ordinary flock when fit to butcher, at fourteen or fifteen months old, is about 180 pounds, and the weight of the wool of the whole flock would be about 7 1-2 pounds each." Few animals are more beautiful than a full-bred Cotswold sheep.

SPECULATION IN CENTS.—While searching a house in Jersey city the other day in pursuit of a suspicious character, the police found two large sacks full of nickel cents, which had undoubtedly been collected with the view of obtaining a large premium for them. It was found necessary to prop up a building in the lower part of New York a few days since, as it was settling at a dangerous rate, and on investigating the cause two huge tierces full of nickel cents were found in one of the upper stories. Their great weight had made the building settle.

For the New England Farmer.

GOD'S PLAN.

I heard His voice: "Thy strength is to sit still.
A weary task I call thee to fulfil:
Patient endurance, humble trust in Me
Through pain and weakness,—This I ask of thee."

Sweet spring is here. Her soft, balm-laden breeze
Whispers in mystery to the budding trees.
Those restful woodland ways to me were "home,"—
Shall I no more among their shadows roam?

I know so well where, 'neath the old beech tree,
First bloom the May flower and anemone,
The cowslip, sun crowned, by the turbid stream,—
No more for me. *Life is a "broken dream."*

Not so! Life is God's plan! No earth-born storm
Can mar the untold beauty of its form.
While we look on, and trembling, dare to doubt,
He, with unerring hand, doth work it out.

No more against my prison bars I chafe.
God's plan is mine. Sure of His love I'm safe.
And so, while days their painful hours repeat,
There's music in my soul, and *life is sweet.*

April 22, 1863. MARGIE.

DECAY OF APPLE-TREES IN ILLINOIS.—The climate and soil of Illinois are very favorable to the rapid growth and early maturity of the apple-tree but we hear much complaint of their being short lived.

W. C. Flagg says, in a recent address:

"The oldest apple trees I have seen in Illinois were not over 60 years of age, and were generally in a very decrepid state. My own trees, the oldest of which are forty years old, have mostly succumbed to the infirmities of age, and the hard winter of 1855 and 1856. Of 100 seedlings and 217 grafted trees set in 1822, about 40 per cent of each were living in 1862. The longevity of grafts and seedlings was the same, which is contrary to general opinion."

IN the town of Berger, in Prussia, is an elegant church, capable of holding one thousand persons, constructed—statues and all—of papier mache.

AMONG THE MACHINERY.

A few days since, we received a polite invitation to take a look into some of the workshops in the city of Worcester, and also at some of the farms and stock in the neighborhood of that city. Our tendencies being pretty strongly in that direction, we suggested to our friend, as the first thing, to go through the shops where the *Buckeye Mower and Reaper* are being built under the direction of A. B. BARNARD, Esq., a gentleman well known to a large number of the farmers of Massachusetts. We first entered the room where the wood work is made, and were quite careful to take due notice "what sort of stuff" was wrought up to be covered with oil, paint and varnish. It was gratifying to find this of the best quality of oak, ash and maple, and all thoroughly seasoned. The machinery to work it was new, and combining the latest improvements. Each workman was confined to a definite part of the machine, so that if engaged in gettting out the shafts or pole, for instance, he would saw out several hundred sets, when they would pass to another person to cut the tenons, and still another to take off the corners. Even this last operation is done by machinery, and in so skilful and finished a manner as not to require any smoothing by sand paper, or other means. This is the process pursued in all the shops, so that great perfection is gained by the workman in that part under his especial charge. It requires, therefore, almost as many persons to make a machine as there are different bolts, bars, wheels, screws and springs contained in it. Before being sent out, every machine is put together and run by steam power, until it is found to move easy and in perfect condition in all its parts. Some *eight hundred* machines were in process of construction, orders for about one-half of which, one of the proprietors informed us, had been already received.

From the wood work shop, we passed through all the others, where we witnessed the same good order as in the first,—the same *system* was everywhere apparent. Our visit at this establishment, ended in the paint shop, where the finishing touches were put upon the machines, and from which place, eight or nine per day, completely ready for work, are trundled off into another building.

At the establishment of LUCIUS W. POND, Esq., we saw a variety of most excellent machinery, such as immense "planers," cutting off the rough surfaces of huge iron work and bringing it to a smooth and common level,—and lathes cutting screws from 20 to 40 feet in length, and seemingly as accurate as the moving works of a watch! In another part of this establishment, *Pond's Patent Pocket Pistol* is made. Here, also, each workman has his specific work. These pistols have a high reputation, and from a pretty close inspection of them, we should judge a reputation well deserved. Every part of this establishment indicated an active, leading mind. There was neither hurry or confusion anywhere, while each blow or turn of a wheel, gradually fashioned something into its desired shape.

In another part of the city we visited the "*Macfarland Malleable Iron Works*," and our visit here was exceedingly gratifying. *Malleable* iron is employed in making a very large number of articles in constant use, and would now be considered indispensable in the arts. It is softer than "cast" iron, and is much more tough. We had always supposed that its peculiar qualities were secured by some chemical process through which the common ore passed before the article, of whatever kind, was manufactured. But this, we learned, is not so. The "fingers," for instance, of the mowing machine, are cast from common iron ore, and when they come from the mould are almost as brittle as glass. In this condition they are put into large cast iron pots, packed down with the scales that peel from castings in the process of finishing up. The pots are then sealed with clay and deposited in a furnace some 8 by 10 feet, until the furnace is full. At an opening at one end of this, bituminous coal is laid upon a grate, sprinkled with coal tar, ignited, and a powerful blower forces the blaze through the entire length of the furnace, causing an intense heat. This is kept up through eight days and nights, when it is allowed gradually to cool off, and the "fingers" that went in brittle cast iron, come out ductile, malleable iron, merely by being *deprived of their carbon*, and thus freed from brittleness! Such is the wonderful power of Science. There is scarcely a conceivable thing used in the house, barn, workshop, carriages, plows, or anything else requiring iron, but we found upon the shelves of these enterprising gentlemen, laid by as specimens of their handiwork.

Many other works and objects of interest arrested our attention at every turn, in this busy hive of human industry, but we have not space to notice them now. One portion of the city seems filled with shops for the manufacture of heavy articles of iron and wood,—and especially of articles adapted to the farm.

So much of our time was devoted to the mechanic arts, that but a brief space was left for a look at some of the farms and stock in the immediate vicinity of the city. Wherever we called, however, we found excellent land, good buildings and attractive homes,—enough we saw to induce us, at a more favorable time, to accept some of the kind invitations received, and to look more carefully at the agricultural features of the place.

GOD often strikes straight strokes with crooked sticks.

GRAFTING.

Every boy on the farm—and every girl, too, we think—should be early taught how to bud and graft. The boys will need it on the trees, and the girls on the roses and other flowers. It is an operation more nice than difficult, and a pleasing one when understood.

The *Horticulturist*, for April, gives a recipe for making a *liquid grafting wax*, as follows:

1 pound of rosin.
5 ounces of alcohol, 95 per cent.
1 ounce beef tallow.
1 tablespoonful of spirits of turpentine.

The rosin is melted over a slow fire. It is then taken off, the beef tallow added, and the whole well stirred with a *perfectly dry* stick. When cooled down a little add the spirits of turpentine, and last the alcohol, in small quantities, stirring the mass constantly. Should the alcohol cool it down too much, so that a lump forms, warm it a little till it melts again. Keep it in a corked bottle, and lay it on in a very thin coat with a brush. If it is put on too thick, a crust will soon form on the surface, preventing the alcohol from evaporating, and consequently the mass from hardening. In a room sufficiently warmed, the wax must be of the consistency of molasses; the quantity of the alcohol may, therefore, be increased according to circumstances.

EXTRACTS AND REPLIES.

UNDERDRAINING.

Will you inform me through your valuable magazine who could be employed as a reliable engineer here in Middlesex county to lay out work for underdraining? I am deeply interested in your monthly pamphlet, and in no department more than that which has brought to light the great benefits to the farmer through successful drainage.

Wayland, April, 1863. EDWARD H. SHERMAN.

REMARKS.—Messrs. SHEDD & EDSON, Iron Building, 42 Court Street, Boston; or Mr. ALBERT E. WOOD, Concord, Mass. They are competent and entirely reliable.

SAVE THE DOGS?

We learn that Mr. Albert Fearing, of Hingham, has recently lost eight of his fine sheep, *killed by dogs*. Among them was a buck of much value. In Ohio, the sheep-owners around Youngstown, held a meeting to devise measures to relieve themselves from the destruction caused by dogs. It was asserted in the meeting that within two weeks, the wool-growers in the vicinity of Youngstown had lost $1125 by the ravages of dogs.

KICKING COWS.

In the *Farmer* of April 25th a Leominster correspondent, "A. C. W.," makes some inquiries and suggestions in relation to an article upon kicking cows. He asks what we do with the milk pail while holding on to one teat with the right hand and at the same time slapping the cow smartly with the other, and especially, he asks, *when* we catch the uplifted foot, and hold it close to the cow's body until she settles down into our lap? "It seems to me," he continues, "it must require considerable strength and agility to be done successfully without spilling the milk or spoiling the pail." In answer to the above first named inquiry, I would say, all that is necessary, is, to set the pail one side before commencing operations. As "A. C. W." says, it requires considerable strength and agility to be done successfully. But a common farm hand will do it nearly every time, and if he is successful in catching the foot he will have no trouble in setting the pail one side; if not, ten chances to one he gets the milk spilled or the bottom knocked out of the pail, as is very apt to be the case if nothing is tried. "I would suggest," he says, "if it might not be safe and better in both cases to strap up one of the fore legs after the fashion of the famous horse-tamers?" In relation to this method I know nothing; but this I *do know*, if this is the best method, and those who try it have no better success with their cows than the famous horse-tamers that have visited this vicinity have had with horses, I should advise them to sell as quick as possible. I most heartily concur with "A. C. W." in relation to preventing kicking, and think, should it be strictly followed, there would be comparatively few that would acquire the habit of kicking.

Strafford, Vt., April, 1863. ELERY.

For the New England Farmer.

RETROSPECTIVE NOTES.

If any reader of the April number of this journal should sit down some evening, or at any other leisure time, and re-read it, marking on the margin every passage which either taught him something new and likely to be of value in his own practice, or reminded him of something which, though not entirely unknown, was yet almost as completely covered up and kept out of sight by the shades of forgetfulness as if it had been in the region of the unknown, and had never been thought of before; if he will mark with his pencil, also, every passage containing a fact or opinion which he thinks may prove useful, and which he would like to treasure up in his memory; if he would mark, too, every passage which suggests anything which he may think would be useful to have fresh in his mind at meetings of his Farmers' Club, or when talking with a neighbor farmer in chance interviews, and to present, at such times, either in the form of inquiry, or as subject for consideration or discussion;—in a word, if any reader will mark every passage which seems to him noteworthy, for the above-named reasons, he will find, on turning back over the several pages after he has completed his re-perusal of this April number, that there is much in it that is valuable; more, probably, than he may have thought when he first hurriedly glanced over it, or perused it without any such taking note of the noteworthy passages. Such was the impression, at least, made on one reader when he took up this number to look again at some statement he had found there, and turned leaf after leaf to find it. The unexpected frequency of pencilled passages surprised him very much. It seemed as if he had not found so much of value in it, when he had read it.

As there are *so many* passages quite noteworthy and of practical value, in this month's issue of the *New England Farmer*, it has occurred to me that it might be more likely to do good, to take the briefest notice possible, of several of the passages I find pencil-marked, than to confine my comments to any single article, as it has been customary with me to do.

First, then, among the pencilled passages, I find the extracts made by the Editor, in his leading article, from a letter by Mr. Oliver P. Mead, covered all over with pencil marks! These utterances or outpourings of a soul that loves beauty, and to whose eye a farm-house embellished with

trees and flowers is an object of exquisite pleasure, are so full of inspiration, so vitalized by the fervent enthusiasm of the writer of them, that cold or coarse indeed must be the taste and feelings of any reader who did not catch from these beautiful outpourings some portion of the fine spirit and fine taste which dictated them. They must have yielded, to many hundreds of the readers of this journal, enjoyment of the most refined and exquisite nature; and if any reader should have failed to receive from them an impulse toward making his or her home *a little more* a home of beauty this spring, and every spring, than it ever was before, or failed to make a resolution to that effect strong enough to set him or her to work in making one or more additions to the embellishments of home and its surroundings, then, surely, such a reader has not read it in an appropriate or an appreciative mood of mind, and might be more fortunate in catching from them inspiration and impulse if he or she should give them another perusal. Surely, these outpourings of a soul so inspired by a refined taste and exquisite love of the beautiful in nature, cannot fail to lead some of the readers thereof to make their homes still more beautiful than ever they have been before, by neater dooryards, or more flowers, or the planting of one or more ornamental shrubs or trees. If a few evergreens should be interspersed with the deciduous trees around a farm-house, it would have a much more cozy and comfortable appearance, especially in winter. I make this suggestion for those who may have been inspired by the words of Mr. Mead, and who are resolved to add something every season to the embellishments of their home. The passages referred to, may be found on pages 105 and 106.

I find several passages of the article on "*The Clover Plant*," marked in the way already named. In the paragraph devoted to a statement of the soils most favorable to clover, I find on the margin an interrogation point, indicating doubt as to the correctness of the assertion that the growth of sorrel and dock shows that the soils infested with these weeds are overcharged with acid. I know that this is a supposition pretty generally accepted; but can the writer of the article under notice, or any other believer of this theory, give us any satisfactory proof or demonstration of it? The two paragraphs devoted to a consideration of the principal causes which prevent a good "catch," or which destroys the young plants, are very valuable, and if duly considered and acted on, might prevent much loss and disappointment.

There are several marked or noteworthy passages on page 111, in which we have a report of a discussion on the subject, "*How to Make and Apply Manures.*" The testimony in favor of *ashes* will probably induce several readers to make a more liberal use of them,—greatly to the benefit of their corn and grass crops. Farmers would be wise and benefited if they heeded the cautions given by some of the speakers as to commercial manures, which have so often been proved to be fraudulent and adulterated impositions, and seldom, even when tolerably genuine, worth the price at which they are sold. I find three prominent exclamation points, indicating great surprise, opposite to the statement that "*sand* is a better absorbing material than muck," and that sand is equally as valuable as muck.

The article entitled "*Hints on Building Barns,*" must be one well worthy of attention, and of more than one perusal probably, as I find a good many pencil marks on its margin.

"*The Care of Boots*" is a marked and probably valuable article. On page 123, under the heading "*Maine Dairies,*" there is a hint as to the pecuniary saving which might be made by a better knowledge and practice of the art of cheese-making. Cheese is now high and in great demand, both at home and abroad, and enterprising farmers would find the making of *good* cheese, worth now in New York 14 to 16 cents per pound, one of the most profitable directions in which they could exercise their enterprise.

There must be many valuable facts and hints in the reports of Legislative Agricultural Meetings, on page 123-125, as I find that the pencil has been pretty freely and frequently used on the margins of these pages. MORE ANON.

For the New England Farmer.

HOW SHALL I BUILD MY BARN?

FRIEND BROWN:—I have subscribed to your Monthly *Farmer* for four years, and during that time have obtained much valuable information from its pages. Whenever I have been in doubt as to the best way of doing anything I had in hand, I have drawn on the Monthly *Farmer* for information, and my drafts have always been honored at sight by the editor, or some of his numerous correspondents. While tendering my acknowledgments for past favors, I beg leave to apply once more to my fountain of knowledge.

On my farm are two old barns, which must be replaced by one new one before next winter. The farm is situated on the southern slope of a hill, contains fifty acres, and cuts about twenty tons of hay. The barn must be large enough to accomdate two horses, eight head of cattle, and the hay and grain crop of the farm.

Will not one of your numerous and kind correspondents be good enough to give me the dimensions of the barn I shall need, the best plan to build it on, and any other information as to location, interior arrangements, &c., he may deem useful to me? always remembering that, as I am a poor man, and dead set against mortgages, I shall have to study economy in my estimates.

Scituate, April 20, 1863. A SUBSCRIBER.

LATE PEARS.—We have received some seedling pears of our old friend and correspondent, Dr. S. A. SHURTLEFF, of Brookline. They are now perfectly fair and sound, of medium size, and have a pleasant flavor. They came from a seedling tree grown on his grounds. We think it will prove a valuable cooking pear, or it may be a good dessert fruit, *a month or two later!* The Doctor will please accept our thanks for his attention.

GREAT HORTICULTURAL SHOW.—The last horticultural show in Namur was the most remarkable ever seen in Belgium. More than 30,000 specimens of fruit were exhibited, composing 8000 varieties. It required 9000 plates to hold it. The Belgium gardeners produced the finest apples, and the French the finest grapes.

THE RASPBERRY---Rubus Idæus.

This, like the gooseberry, is an indigenous production, and common in most parts of the State. It is a robust and healthy plant, and when properly cultivated, a prolific and steady bearer. The plants may be set either in spring or autumn—though we prefer the spring—and should be well manured with old compost, formed of animal excrement, well decomposed forest leaves, and wood ashes or slaked lime. A slight quantity of gypsum will be found beneficial. The soil apparently best adapted to this fruit, is a light, and rather warm loam, approaching to sand, with a free and pervious subsoil. In setting, it is a good plan not to crowd the plants. Three feet between the rows, and the hills three feet apart, is near enough; or if in drills, the plants should not stand nearer than eighteen inches of each other.

The soil requires considerable attention—that is, as much as corn when it is well-tended—and should be carefully and frequently worked, to keep down the weeds, and retain the surface in a light, moist, and permeable condition, particularly while the plants are taking root.

If too great a development of top should be the consequence of this treatment, the pruning knife should be applied, and the superabundant shoots topped off. This will throw the reproductive force of the system into their stems and larger branches, and secure greater strength, which, in time, will admit a more full development of their upper parts.

Unfermented manure, is never so good as that which has been decomposed or composted, but if none but unfermented is at hand, let it be made as fine as possible, and when it is applied, mingled intimately with the soil.

Among all the small fruits, perhaps there is none more easily produced than the raspberry. There is really no difficulty in its cultivation. It requires no more skill than to produce so many hills of corn, and the family of every farmer ought to be bountifully supplied with it throughout its season. A saucer of this fruit at breakfast will be more palatable to those who are not engaged in severe and exhausting labor, than meat, and will be sufficiently nutritious. Indeed, in warm weather, we believe our whole population would be more healthy, and capable of enduring more hard labor, if a considerable portion of their diet was made up of the fresh and delicious fruits with which our gardens might abound, instead of the stimulating meats which are so common upon our tables.

In the spring, as soon as the snow has left the ground, the dead canes in the hills should be taken out, together with any of the living ones beyond three or four of the best, which should be left and tied to a stake or trellis-work. This prevents them from falling over when in full foliage, and admits the sun, light and air among their branches, and enables them to produce large and perfect fruit.

A PLANT THAT GROWS WELL IN THE SHADE.

The Jerusalem Artichoke, *(Helianthus Tuberosus,)* is a plant which rather prefers the shade, and has been known to flourish well, and produce an abundant crop in situations where it has not received a single direct ray of solar light for the whole season. It is not an exhausting crop, but, on the contrary, will bear abundantly for ten years or more in succession, without manure, and where the soil is rather light snd sterile. After it has once become fairly radicated in the soil, no further trouble is requisite, as the roots propagate themselves, and as there will generally be enough tubers remaining in the soil after harvest to render fresh setting, the subsequent spring unnecessary.

The *Helianthus Tuberosus* also possesses the property of absorbing nitrogen copiously from the atmosphere. To this circumstance we attribute the fact of its flourishing so luxuriantly in the shade, and without the benefit of manure. On the banks of the Rhine, this plant is extensively cultivated. It is planted in drills, in the same manner as the potato is with us, and the produce is used for food both for man and beast.

THE WEATHER.—We have had a succession of cold and stormy days up to the 8th of May. Wind north, north-east and east. The blossom buds that had begun to expand, shrunk back from the chilling winds and found protection in their cerements, which closed closely around them. The grass crop and trees, however, are looking finely, caring nothing for east winds, only to drink up the vapors which they bring.

The season is a little backward. Oats and other grains that are usually got in by the first of May, are not yet sown in many cases.

Pear trees are promising a profuse blossom, and so are many of the apple trees.

SORE MOUTH IN SHEEP.—In answer to an inquiry in a late number, respecting the sore mouth in sheep, as far as I can learn, it is what I call canker in the mouth. What is the cause I cannot say, but should not think buckwheat straw could be the cause of it, although I should prefer not using such for litter. I had a few cases of canker in the mouth in the fall of 1862—got it by taking ewes into the ram. My remedy is to get a little alum and dissolve it in pure spring water, and with a sponge, or a small portion of cloth, dress the parts affected twice a day, and I soon found it to effect a cure.

I believe it is a little contagious, but at the same time do not think it a dangerous disease. It annoys the sheep very much if not stopped in time.—JOS. KIRBY, *Norval, C. W., in Country Gentleman.*

OBITUARY NOTICES.

Death of Hon. John Brooks.

We have heard, and with sincere emotion, of the death of the Hon. JOHN BROOKS, of Princeton. He died at his residence, on Sunday, May 3d, of disease of the heart. It is but a few days since we enjoyed a pleasant conversation with him, and found him vigorous and in full possession of all his mental powers. Suddenly, and with scarcely a premonition of the great change, he was called from a field of labor where we believe he had endeavored to be useful to his fellowmen, and where he had taken an active and influential part.

In early manhood, Mr. Brooks was one of the business men of Boston, but in his maturer years his strong inclinations for rural life and the cultivation of the soil, drew him away into the romantic region where he has since lived, and where he has made a decided impression upon many who have come in contact with him. He had a decided taste for agricultural pursuits, and found great pleasure in making experiments. In this he was able to indulge to a very considerable extent, as he had ample means to bear the losses so often incurred in testing new crops, manure and soils.

Mr. Brooks was a kind, affable and liberal man. He was a close thinker, and when his opinions were once formed, he was very tenacious of them, and it required strong testimony to induce him to yield them. As a practical agriculturist, and a writer upon agricultural topics, he will long be remembered by the farmers of our State.

Death of Dr. William Darlington.

As we go to press the telegraph announces the death of this distinguished gentleman, at his residence in West Chester, Pa., on the 22d of April, in his 81st year. As a statesman and patriot,—a man of vast intellectual powers, and of first class scholastic and scientific attainments,—and at the same time possessing that benevolence and energy of mind that is capable of wishing well and doing well to his country and to individuals, he accomplished the most valuable results,—and in this has had no superior in American history.—*Gardeners' Monthly.*

Dr. Darlington was the author of the useful work, "*American Weeds and Useful Plants*,"—a work which we find very convenient, and from which we frequently quote. He was also the author of a work on *Agricultural Botany*. The work on Weeds and Useful Plants will remain as a monument to his memory.

SHEEP IN KANSAS.—An account is given in a Kansas paper of a farm near Leavenworth, on which there are 1,225 sheep. Mr. Barnes, the owner, prefers the Spanish Merino, and raises only from that. He expects to shear 5,500 pounds of wool this spring, and counts upon 700 lambs. Is farming a small business?

For the New England Farmer.

SCHOOLS IN THE LAST CENTURY—GAMBLING, &c.

MESSRS. EDITORS:—In my story, the egotism I shall manifest would probably be ridiculous exhibited by a younger man,—but I shall expect the pardon of my readers, in consideration of the subject I write upon being in the last century.

At the close of the revolutionary war, the schools in the country were but few, and generally of short duration; the first "master" I went to was a very respectable, worthy man, engaged for one month, I believe, at $6,00. He could teach reading, writing, spelling and arithmetic, but not grammar; he was a good-natured man, rather lax in his government, which was anything but despotic; the scholars enjoyed liberty, independence, and the "pursuit of happiness." The school was kept in a dwelling-house; it so happened that there was a wooden clock in our school room, furnished with a bell, which, once an hour, proved its good metal by its powerful admonitions of the shortness of time. At that time I was about four years old; other children of my age and older, on the striking of the clock, among their "privileges," would, without saying "pray, sir, may I leave my seat," suddenly bound from their four-legged forms toward the long clock case, and apply their ears so as to receive the whole benefit of the noisy, vibrating strokes of the clock within. Our school books consisted of the Primer, Dilworth's spelling book and the Testament. The scholars read individually, being called up in rotation. This school was in the year 1784.

In the winter of 1786, we had a pupil from Cambridge college, a very good teacher; Perry's and Webster's spelling books were introduced about that time; our other books were the Bible and primer; our master "knew grammar," and our school was kept in a private house. His term was four or six weeks,—he being from the seat of learning, his wages were raised a little above $6,00 a month, I think. A little unfortunate incident befell me that winter: I was then six years old; at recess, another boy of equal age with myself agreed upon a game at pins, so we procured an old felt hat and played pins according to the custom of the times, and more from accident than skill, I played him out of all his stock of pins; he was offended and flew into a violent passion, but I held on to my *honestly* acquired booty like a veteran in the profession, till he pounced upon me like one in the last stages of despair, or a bear fighting for her cubs! We used the weapons with which nature had furnished us, fingers and teeth, instead of revolvers and bowie knives. When this affair of *honor* was over, and we had cooled down, I began to reflect upon the folly and sin of this miniature, and all other gambling, and from that day I have never gambled in any way or shape to the amount of a cent—a final cure.

Parents would do well to convince their children of the danger and evil growing from these little petty gambling operations; they are the seeds which sprout and grow into enormous vices, and prove the sources from which robbery, piracy and murder flow.

In the winter of 1787, our school was kept in a farmer's house, and as usual, books and progress about the same as before. This winter was remarkable for *Shay's rebellion*. Up to this year we

had no district school house. There had been no summer school kept by a female for several years, excepting one in the centre of the town, to which my little brothers and sisters went daily, three and a half miles, to learn to read and spell. In the spring of this year the district ventured to commence the building of a school house, and progressed so far as to cover it and lay a single, rough floor! A female teacher was engaged at, I believe, about a dollar a week, and "board herself." Some thought it too much to pay a girl for so easy a task! however, we children went to school and abided the most terrific thunder showers, in our shell of a school house without a chimney. When the winter of 1788 came about, our school house was finished in a cheap way; the floor was single, which afforded a bountiful ventilation when it was shrunk; the writing table was a cross-legged, wide bench, for the boys one side, and the girls the other; and the school commenced and ended in about the same manner as their predecessors had done. Be it remembered up to this time the Assembly's Catechism was one of the most important school books, winter and summer, used in the schools.

From this time to the year of 1792, little progress or variation was made in our schools, except the introduction of Perry's spelling book—an excellent work. In the year 1792, our country began to feel the effects of a stable government, and the French revolution; money began to circulate and people to wake up. That year new books were introduced: Webster's 1st, 2d and 3d parts, with several other useful books, and more competent teachers were employed, at some better pay.

Young ladies, preparing themselves for teachers, began to study grammar, (there were no female academies at that time in this region.) The young lady teachers in those days had better health —if less learning—than at the present time; they would walk a mile, more or less, to their schools, and spend six or eight hours and back again, where the spinning wheel was in readiness for them. I remember some of them well. They were not disfigured by broken backs and broken constitutions, for the want of exercise, and they governed their schools accordingly; they used a sapling resembling a boy's fish pole, which would reach the remote scholars with a little effort, and wo to the young culprit's cranium who was seen to play, or guilty of idleness. This dreaded weapon was useful for other purposes than chastisement, as, if silence or attention were required, a sudden stroke upon the floor would produce the immediate effect.

As late as the year 1797 there were no academies in this vicinity, except the Phillips Academy, at Andover, and another by the same name, at Exeter, N. H. I was pupil at the Andover Academy in the year 1797, and what will surprise people at the present time, there were but forty or fifty pupils in the school, notwithstanding academies were so scarce; three of them were from Virginia, viz., Augustine and Bushrod Washington, nephews of the General, and Francis Lightfoot Lee, and the others from the towns in the vicinity. What I have written in regard to our district school will apply to many other schools in New England at that period. SILAS BROWN.

North Witmington, Feb., 1863.

For the New England Farmer.

FARM HINTS.

FENCES—AGRICULTURE IN SCHOOLS—COMMON SENSE.

Too much lumber is used in building fences. A fence two boards high, one and a half foot from the ground, space between boards eight inches, boards five inches in width, is a plenty for any cattle that ought to be allowed to graze; less likely to be blown down than higher, and a more compact fence.

"Agriculture in Common Schools," is the heading of an article in a late number of your paper. I have read it, and others on the same subject. My opinion is, that there are branches enough taught in the common schools. The best farmers whom I find along the road, are the practical ones, taught in the field, and make use of the common sense that God has seen fit to give them, read the *New England Farmer*, and raise a large porker instead of a dog! Botany, I consider indispensable to the farmer, and a stable mind, which leads it not into every suggestion of those of us who rather dictate than work.

"Cornstalks for Fodder," heads an editorial. If I had a cow that I wished to dry up, I would give her a plenty of the best cured cornstalks, and I would give them to other stock which I did not wish to have nutritious food. Down this way we are not apt to give that attention to the feed of milch cows that we ought. Every cow, instead of decreasing her usual flow of milk, ought to increase it on coming to the barn. Such would be the case, if the feed of the cows consisted of second crop, with the addition of cabbage and turnip leaves.

"Those sheep look first rate," says the stock buyer to the farmer—a most unusual saying—but it would be more frequent, if we chose good built ones, and favored them with the sight of good hay, roots and grain. That bone which the neighbor's cur has finished gnawing the meat from, if planted with the potato, will save putting in a shovelful of manure. S. P. M.

Cape Elizabeth, 1863.

For the New England Farmer.

A CORN BARN.

MR. EDITOR:—In your paper of April 25th, Mr. "J. W. Nye" inquires how to build a corn barn. I regard a good, convenient corn barn of great importance to a farmer, especially if it answers the purpose it is made for. There is some satisfaction in knowing that we have one place free from rats and mice, although many that have corn barns never experience such a sensation! Then, again, it is very agreeable to have sweet, wholesome bread.

In 1859, I built a corn barn which has answered a very good purpose, and if any one can gather any useful hints from a description, they are welcome. It is 16 by 20 ft., 10 ft. posts; the corner ones run down and rest on granite blocks. The crib, or bin, is on the south and east sides, formed by putting on slats three inches wide and one inch apart, with another set of slats the same width and distance apart, fastened together with cleats. The outside slats slip like a slide door over the open spaces, when desired. On the north side, there are two bins for oats and wheat, that hold nearly 100 bushels each; these are made very

cheaply by nailing boards to the floor timbers above; the bottom of the bin should be three feet above the lower floor, so that a common meal bag may be fastened on, miller fashion, and filled by opening a slide for that purpose. To keep the mice out, I nailed tin on the posts, and use steps that swing down when not in use.

Let me enumerate some of the advantages of the above building. By laying down a large, flat stone, with a small granite block for the end of the post to rest on, the post is kept dry; the corner posts running down it will always stand plumb; the extra slats allow a wider space for air, and make it tight in the winter. The bins are cheaper, more convenient, and take up less room than any others; the only objection is carrying grain up stairs, which is overbalanced by the convenience of taking out,—and last, but not least, it keeps the rats and mice out. A. M. F.

Calais, Vt., April 24, 1863.

REMARKS.—Very little has been said in the agricultural papers on the subject of Corn Barns. The description above varies, considerably, from that given by our Rockingham correspondent. We are happy to lay it before the readers of the *Farmer*.

WASH FOR BARNS.

There is no cheap substitute for oil paint. All the different kinds of whitewashing are incapable of shutting out moisture. The sides of buildings especially exposed to rains, will lose a portion of any kind of wash by the combined action of frost and moisture. Oil paint obviates this difficulty.

There are many different kinds of wash recommended; but with a single exception we have never found anything better than a mixture of good lime with water. This exception we have made a thorough trial with. A rough barn, which received a coating four years ago, now retains most of it, although a considerable portion is scaled off on the most exposed side. This wash is made substantially as follows: One peck of fine beach sand, three pecks of water lime, and four quarts of salt. These proportions might vary without detriment—there should be as much sand as can be conveniently applied with a brush. A farm laborer applied this mixture early last summer to two rough barns, one about 30 by 55 feet, the other 20 by 30, in three and a half days, consuming two bushels of water lime, which was nearly the whole cost of material. This coating, now nearly one year's standing, appears to be as good as the day it was put on. It will be perceived that the expense is only about one-tenth the cost of a coat of paint.—*Country Gentleman.*

SUBMARINE TELEGRAPH CABLES.—The firm of Glass, Elliott & Co., London, has laid since 1853 no less than 30 submarine telegraph cables, varying in length from three to 1535 miles each. Eight of the number were more than 100 miles in length. The longest was that put down from Malta to Alexandria. It has been in operation one year. The aggregate mileage of these cables is 3929 miles, and on the 20th of October last, with the exception of one that had been taken up, they were all in perfect and successful working order. The longest is nearly as long as the proposed Atlantic cable.

For the New England Farmer.

MAY.

May!
How the heart leaps up at the magic word,
While a thousand fancies, tender and gay,
Of birds and flowers, in its depths are stirred.
Silently, softly, she comes this way,
Tender-eyed, fawn-footed, fairy May!

May!
Floats her warm breath on the chill morning air,
And deliciously sweet grows the breeze's soft play
As it fans from the brow faintest traces of care.
Silently, softly, that is her way,
Tender-eyed, fawn-footed, fairy May!

May!
The music of bird-song floats soft on the air;
Heralding sweetly the new-coming day;
Wafted on high like the incense of prayer.
Gratefully breathed for the morning's first ray,
Tender-eyed, fawn-footed, fairy May!

May!
Sweet flowers spring up in the grove and dell,
Violets blossom along the way,
The air is redolent with the smell,
Of odors dropped from the lap of May,
Tender-eyed, fawn-footed, fairy May!

Cottage House. T. E. J.

FEEDING HOGS.—A correspondent of the Boston *Cultivator*, who insists that the food for hogs should always be cooked, and, in cold weather, fed to them warm, and in a warm place, gives the following statement of his manner of preparing the daily food, and the cost thereof, for his swine; his business being chiefly to raise pigs and shotes for sale:

Take six pounds of beef scraps, at a cost of nine cents, boil in two pails of water, scald in two quarts of corn cob meal at a cost of three cents, add six pails of water, and you have good swill enough to feed six store hogs and eight small shotes once, at an expense of twenty-four cents. This done twice each day is sufficient to keep breeding sows or store pigs in good condition. This is the exact quantity I am feeding to the number of hogs mentioned. I slaughtered two fat hogs last fall, fed in this way until the time to fatten them arrived, after which they had their usual feed thickened to a dough with corn and cob meal only, and at the age of sixteen months the two weighed over 1000 pounds.

DISPROPORTION OF THE SEXES.—The great excess of males in new territories illustrates the influence of emigration in effecting a disparity in the sexes. The males of California outnumber the females near sixty-seven thousand, or about one-fifth of the population. In Illinois the excess of males amounts to about ninety-two thousand, or one-twelfth of the entire population. In Massachusetts the females outnumber the males some thirty-seven thousand six hundred. Connecticut, seven thousand. Michigan shows near forty thousand excess of males; Texas, thirty-six thousand; Wisconsin, forty-three thousand. In Colorado the males are as twenty to one female. In Utah the numbers are nearly equal; and while in New York there is a small preponderance of the females, the males are most numerous in Pennsylvania.

THE BUCKEYE MOWER AND REAPER.

It becomes the farmer more than ever this year to avail himself of every sort of labor-saving implement that can be economically used. In consequence of the withdrawal of so many laborers to the army, there is a scarcity of help, and wages are unusually high. There is no lack of breadstuffs or of beef and other meats, but it is certainly prudent—while the nation is involved in war—to raise at least as much of all the staple articles of the farm as we ever have in any former year.

Demand must continue to be great, while the means of producing are greatly abridged. Let us, then, call in to our aid whatever will relieve us of human toil, and, at the same time, enable us to fill our barns and granaries with their accustomed supplies. *We shall yet have to feed, not only our loyal people, but those who hate us and despitefully use us,*—men and women who are striving to crush the best government that ever blessed mankind!

Among the prominent means of enabling us to produce our usual amount of crops, is the MOWER and REAPER. Its use will so facilitate the securing of the hay and grain crops as to leave ample time for tending the Indian corn, the fruit and the root crops, and to bestow all that careful attention upon our animals which they require, in order to make a rapid and profitable growth.

There are now before the public several kinds of these machines,—some seven or eight of which we have used in our own fields, and have given them as fair a trial as we were able to. Mr. HUSSEY, of Baltimore, the inventor of the knife and its peculiar motion, continued to construct new machines while he lived, and brought one to us annually from his work-shops to test its value. Only twenty-four hours before his death, we were engaged with him in testing the last machine of his construction. Very great improvements have been made within the last two years, until we have now, in the *Buckeye*, a machine that is satisfactory to those who have given it a fair trial, and who do not expect a machine to perform *all the labor* of the farm.

The beautiful cut of the *Buckeye Mower*, which we here introduce, illustrates its power while mowing the grass on the side of a bank, as will be seen by the position of the scythe, and while the nigh wheel is at the same moment passing over a rock! The Double-Hinged or flexible bar accommodates itself to the surface of the ground, and the machine passes along without any straining of its parts, even though one or both of the wheels are passing over obstructions at the same time! There is no other mower, in our knowledge, that will perform such a service as this.

There are three sizes of the *Buckeye*—1, 2 and 3. No. 1 is the largest, No. 2 is called the "Junior," and No. 3, the One-Horse Machine. We have rarely heard of the breaking of one of these machines, and we believe that in compactness, lightness of draft, excellence, and even *elegance* of workmanship and finish—combined with strength and adaptation to all kinds of work,—it surpasses any mowing machine that has come to our knowledge. Some have thought the Buckeye a little heavier than is necessary, but experiments have proved their weight to be the least which will combine strength and durability with lightness.

The engraving which we give above is spirited and truthful, and suggests nothing that the machine is not abundantly able to perform.

We have not tested all the mowers in the market, and are, therefore, not able to say which is absolutely the best machine; but we feel perfectly free to advise any farmer wishing to employ a machine, to purchase the *Buckeye*, and are quite sure that he will find his money profitably invested. See advertisement in weekly *Farmer*.

For the New England Farmer.

USE OF THE BAROMETER.

The usefulness of the barometer can never be doubted by the mariner, and there is no doubt of its having been the means of saving both lives and property in many instances; but that it is an infallible foreteller of the weather, or even an indicator by which an unpracticed person can judge of the probability of storm or sunshine, is by no means the case. Yet, as a navigator, I would never go without one. As a farmer, I should look to one more as the means of a scientific amusement, than for any practical benefit. The usefulness of either kind, mercurial, Aneroid, or others, is much the same, and must be studied for a considerable while before being able to form any judgment of the weather from its indications; thus, with the wind at N. W., and fine weather preceding a N. E. wind and storm, the barometer will usually rise till it begins to rain, and often for some time after.

I remember once, in endeavoring to make New York harbor with a north wind and fine day, barometer high, it hauled to N. E. and came on a violent storm so much so we were glad to haul off shore under close reefs, yet the barometer continued to rise till the highest of the storm, and continued so till the storm was over; but I considered that a very unusual circumstance. Another illustration may show how much good reason I have for valuing its warnings. It was in the Indian Ocean, on a voyage to Australia, in a fine barque, with nine cabin passengers, of which two were ladies. And here let me remark that as the barometer usually falls for a southerly wind, and rises with a northerly wind in north latitude, the reverse is the case when we cross the line to south latitude, there the barometer rising with the south and falling with the north wind. The barometer had been falling for several days with an increasing northerly wind and storm, while we were forced to gradually shorten sail till we had come down to a close reefed fore topsail, under which we scud, while, as the novelists describe it, "the sea ran mountains high." The wind came in fitful gusts with rain, and in squalls blew most fearfully. The barometer had now fallen to a point much lower than I had ever witnessed, and where it only reaches during the most severe gales or hurricanes. Toward noon it began to moderate, the clouds broke, and by twelve, our dinner hour, it was nearly calm, while the sun shone from a cloudless but rather a hazy sky. I was on the point of making sail several times, but as the barometer showed no signs of rising I waited; while our barque rolled and tossed about on the heavy sea that had risen, in a way that made it rather difficult to keep ones feet.

On going down to dinner, though there was every appearance that the storm was over, I observed the barometer had fallen still lower, and then I felt sure that it meant something serious. Swallowing a mouthful, I left the passengers to finish their dinners while I went on deck and ordered extra gaskets, or fastenings, on all the sails, braces hauled well taut, and everything made as secure as possible. The sky was yet clear, and but a light air from the west, to which point it had gradually veered, scarce sufficient to fill out our close reefed fore topsail; but twenty moments scarce elapsed after my coming on deck, and while we were yet busy making all secure, when a dense fog-like bank arose from the west, coming more and more rapidly, until in a few minutes it reached us, and in five minutes it was blowing a perfect hurricane. What had seemed like fog on its first appearance, proved to be the spray which the wind caught from the crest of the seas as it swept along in its resistless fury. Our staunch vessel, for she was new and strong, trembled like an overburdened steed, sometimes seeming almost drowned (if I may so call it,) with the seas which rolled in on both sides, for we were now running in the trough of the sea, then again rising to the top and darting along like a startled deer.

The decks were continually filled with water, and we were obliged to cut away some of the bulwarks to let it off. Everything movable on deck was washed overboard. The harness cask, two-thirds full of beef and pork, broke from its lashings and floated out over the rail. One man was taken off his feet and washed about decks and finally left on his back on the iron railing round the poop, from which he fortunately canted inboard.

I was obliged to take the helm myself, as the glass over the compass was so continually covered by salt spray as to be invisible. The windows of the cabin were all closed with shutters. One passenger, a young man who had faced many a storm at sea before, came on deck and sat on the skylight before me, but I urged him to go below, for fear he might be washed overboard. For four hours I stood at the helm, daring to trust no one else; during which time the air was so filled with spray that it was almost as dark as night; then the sea became more regular, but rolled up in huge waves over our stern threatening to come down on us and sweep everything before it; but fortunately our good vessel rose safely above them all. At 5 P. M., the gale moderated slightly, and I ventured to go below to see how my passengers fared. I found some in tears, some with their Bible, and some had been praying. They were much relieved when I told them the worst was over, and I could see they breathed freer. Each one was anxious to prove that they were less frightened than the others, and while one averred that another had been crying, this one accused the other of trembling so as to shake him off the chest on which they were both sitting; but all agreed that it was pleasant to see a piece of blue sky once more, though it continued to blow a heavy gale for three days afterwards.

Then I felt, the barometer, by warning me not to make sail, had been the means of saving my sails and spars, possibly our lives. While in Melbourne several vessels came in, more or less damaged in this same gale, some having lost spars and sails, and one with decks swept entirely, bulwarks and sails all gone.

The service of a barometer, on such an occasion,

repays the many needless alarms which it has sometimes occasioned. But I have already spun my yarn too long, and will say to those who are about purchasing one, and not acquainted with its use, that they should always procure the directions for using them, and that the words on the face are no guide for them to go by.

Yours truly, JACK CROSSTREES.

For the New England Farmer.

METEOROLOGICAL RECORD FOR MARCH, 1863.

These observations are taken for, and under the direction of the Smithsonian Institution.

The average temperature of March was 24°; average midday temperature, 32°. The corresponding figures for March, 1862, were 32° and 39°. Warmest day the 25th, averaging 42°; coldest day the 13th, averaging 3° below zero. Highest temperature 48°: lowest do., 18 below zero.

Average height of mercury in the barometer, 29.32 inches; do. for March, 1862, 29.10 inches. Highest daily average, 29.79 inches on the 20th; lowest do., 28.92 inches, on the 29th. Range of mercury from 28.80 inches to 29.90 inches. One severe rain storm. Snow fell on fourteen days. Amount of rain and melted snow 4.72 inches; do., of snow, 38:75 inches. Corresponding figures for March, 1862, 4.82 inches and 18 inches. There were two entirely clear days—four days were entirely overcast.

The severe cold spell during this month will be remembered; the average temperature of this month being three degrees lower than that of January last; though the midday temperatures averaged the same, showing much greater coldness of the nights. The comparison between the barometrical and thermometrical averages of this month and of March, 1862, will be noted with interest. A. C.

Claremont, N. H.

A NEW TREE PROTECTOR.

Messrs. RECORD & BLAKE, of Turner, Me., have left with us a new device for preventing the passage of canker worms up their trunks. It consists of a copper wire sheath, which is to surround the tree, and may be readily adjusted so as to fit a tree of any ordinary size. The lower part of this sheath is pressed into the ground during the season when the borer is depositing its eggs.

Over this sheath is another, in the form of an inverted tunnel, which may also be adjusted so as to fit trees of varying size. This, too, is made of wire gauge, but may be of cheaper material, such as tarred paper, or cloth saturated with oil or some sticky substance. Each sheath has an elastic strap by which the whole is snugly and safely held in place.

This contrivance seems to us the most perfect one we have yet seen to keep the canker worm from trees. We understand that the cost will not be so high as to exclude its general use.

HE that blows the coals in quarrels he has nothing to do with, has no right to complain if a spark fly in his face.

SPRING.

Delicious spring! God sends thee down
To breathe upon his cold and perished works
Beauteous revival; earth should welcome thee,
Thee and the west wind, thy smooth paramour,
With the soft laughter of her flowery meads,
Her joys, her melodies. The prancing stag
Flutters the shivering fern; the steed shakes out
His mane, the dewy herbage silver-webb'd
With frank step trampling; the wild goat looks down
From his empurpling bed of heath, where break
The waters deep and blue with crystal gleams
Of their quick-leaping people; the fresh lark
Is in the morning sky; the nightingale
Tunes even song to the dropping waterfall.
Creation lives with loveliness, all melts
And trembles into one mild harmony. MILMAN.

MINING UNDER THE SEA.

Mining can hardly be a pleasant occupation. The absence of sun and all natural light, the dripping sides of the shaft, the danger of explosion from the fire-damp, of jutting rocks and numerous other perils, invest it with vague terrors to active imaginations. But when the shafts run under the sea, and the swell of the ocean is distinctly audible, it must suggest many fears to the diligent miners. The following graphic description is taken from an English paper:

We are now four hundred yards out under the bottom of the sea, and twenty feet below the sea level. Coast-trade vessels are sailing over our heads. Two hundred and forty feet below us men are at work, and there are galleries yet below that. The extraordinary position down the face of the cliff, of the engines and other works on the surface, at Bottallie, is now explained. The mine is not excavated like other mines under the earth, but under the sea. Having communicated these particulars the miner tells us to keep silence and listen. We obey him, sitting speechless and motionless. If the reader could only have beheld us now, dressed in our copper colored garments, huddled close together in a mere cleft of subterranean rock, with a flame burning on our heads, and darkness enveloping our limbs, he must certainly have imagined, without any violent stretch of fancy, that he was looking down upon a conclave of gnomes.

After listening a few minutes, a distant and unearthly sound becomes faintly audible—a long, low, mysterious moaning that never changes, that is full on the ear as well as heard by it, a sound that might proceed from incalculable distance—from some far invisible height—a sound unlike anything that is heard on the upper ground, in the free air of heaven—a sound so sublimely mournful and still, so ghostly and impressive when listened to in the subterranean recesses of the earth, that we continue instinctively to hold our peace as if enchanted by it, and think not of communicating to each other the strange awe and astonishment which it has inspired in us from the very first.

At last the miner speaks again, and tells us that what we hear is the sound of the surf lashing the rocks a hundred and twenty feet above us and of the waves that are breaking on the beach beyond. The tide is now at the flow, and the sea is in no extraordinary state of agitation, so the sound is low and distant just at this period. But when storms are at their height, when the ocean hurls mountain after mountain of water on the cliffs, then the noise is terrific; the roaring heard down here in the mine is so inexpressibly fierce and aw-

ful that the boldest men at work are afraid to continue their labor; all ascend to the surface to breathe the upper air, and stand on firm earth, dreading—though no catastrophe has ever happened yet—that the sea will break in upon them if they remain in the cavern below.

Hearing this, we get up to look at the rock above us. We are able to stand upright in the position we now occupy; and flaring our candles hither and thither in the darkness, can see the bright, pure copper streaming through the gallery in every direction. Lumps of coze, of the most lustrous green color, traversed by a natural net work of thin, red veins of iron, appear here and there in large irregular patches, over which water is dripping slowly and incessantly in certain places. This is the salt water percolating through invisible crannies in the rock. On stormy days it spurts out furiously in thin continuous streams. Just over our heads we observed a wooden plug, of the hickness of a man's leg; there is a hole there, and hat plug is all we have to keep out the sea.

Immense wealth of metal is contained in the roofs of this gallery throughout its entire length, but it will always remain untouched; the miners dare not take it, for it is a part (and a great part) of the rock which is their only protection against the sea, and which has been so far worked away here that its thickness is limited to an average of three feet only between the water and the gallery in which we now stand. No one knows what might be the consequence of another day's labor with the pickaxe on any part of it.

VISITING SCHOOLS

We know a man who, last summer, hired four colts pastured on a farm some five miles distant. At least once in two weeks he got into a wagon, and drove over to see how his juvenile horses fared. He made minute inquiries of the keeper as their health, their daily watering, etc.; he himself examined the condition of the pasture; and when the dry season came on, he made special arrangements to have a daily allowance of meal, and he was careful to know that this was regularly supplied.

This man had four children attending a district school kept in a small building erected at the cross-roads. Around this building on three sides is a space of land six feet wide; the fourth side is on a line with the street. There is not an outhouse or shade-tree in sight of the building. Of the interior of the school-house we need not speak. The single room is like too many others, with all its apparatus arranged upon the most approved plan for producing curved spines, compressed lungs, ill health, etc.

We wish to state one fact only. This owner of those colts, and the father of those children, has never been into that school-house to inquire after the comfort, health or mental food daily dealt out to his offspring. The latter part of the summer we chanced to ask, "Who teaches your school?" His reply was that "he did not know; he believed her name was Parker, *but he had no time to look after school matters!—American Agriculturist.*

☞ The Chicago *Journal* says that the farmers of Southern and Central Illinois are going into the cotton raising business in earnest. Six car loads of seed were sent from Cairo last week, to different points on the Illinois Central.

LEACHED ASHES.

Wood ashes always contain a considerable amount of carbonate of potash, lime, &c., and are consequently very beneficial to such plants as require large quantities of these alkalies, such as Indian corn, turnips, beets and potatoes. Leached ashes have lost much of the principal alkaline salts, and have been deprived of the greatest part of their most important soluble ingredients; still they must not be regarded as an unimportant fertilizer, and other matter which they contain is always more or less beneficial to the soil. Unless the land is well worked and contains sufficient organic matter, we should not consider ashes, whether leached or unleached, as alone adequate to the production of a good crop of wheat, turnips or corn.

There is something about old leached ashes that we do not understand, though we have given the subject considerable attention. We have seen instances where old leached ashes have had an excellent effect on wheat, while unleached ashes seemed to do no good. We have thought that perhaps the potash and soda which had been washed out, were replaced by ammonia and nitric acid from the atmosphere. The subject is one worthy of investigation. At all events it is certain that leached ashes frequently have a very beneficial effect; and if the above hypothesis is true, the older they are the better.—*Prof. Buckland.*

The Poll Evil in Horses.—Some persons regard the poll evil as incurable. It is sometimes called fistula. No matter how long the sore has been running, it can be cured in a brief time, and at a cost not exceeding ten cents. One dime spent in muriatic acid will be sufficient to effect a radical and permanent cure of the most stubborn fistula. The sore should be first thoroughly cleansed by some abstergent fluid, and for this purpose pure water is perhaps as valuable as anything that can be used, and drop eight or ten drops of the acid in twice a day till it has the appearance of a fresh wound; then wash clean with soapsuds made of Castile soap, and leave it to heal, which it will speedily do if the acid has been used long enough. Should it, however, heal slowly, apply the acid a second time, and in the manner above described, taking care to wash out the pipe thoroughly, and it will be found an infallible remedy in the most inveterate diseases of this sort; but it must be remembered that in order to do so, the acid must be applied till the corrupt or diseased flesh is all burned out.—*Germantown Telegraph.*

Linseed and its Oil.—In addition to what we have already said respecting the favorable prospects for the cultivation of flax to obtain fiber, the present prices of flax seed and linseed oil also offer great inducements for its more extensive culture. Linseed oil has recently been selling for one dollar seventy-five cents per gallon, at wholesale, and flax seed at from $3 25 to $3 50 per bushel. Flax for rope and cord-making is selling for twenty-five and thirty cents per pound. Land on which oats or corn have been planted in the previous year is well suited for flax when put into good tilth. If the season is favorable, and the soil suitable, 14 bushels of seed and 500 pounds of dressed flax may be obtained from an acre.—*Scientific American.*

CULTURE OF INDIAN CORN.

In the published Transactions of the *Hingham Agricultural Society* for 1862, we find a Report of experiments made in the *culture of Indian corn*, which contains many valuable facts and suggestions. For the first class of premiums, that is, for the largest quantities raised upon one acre, there were three competitors, viz.:—CALEB HOBART, CHARLES W. CUSHING, and JAMES CUSHING. On the 15th of October, the committee visited the fields and selected two rods as required by the rules, and January 5, they shelled, measured and weighed the several lots with the following results:

Yield of the Several Lots in Competition.

Names of competitors.	Measure of corn.	Weight of corn.	Weight of cobs.	Weight of corn per bu.	Bushels to the acre.	Sort of corn.
Caleb Hobart.....	43 qts.	70½ lbs.	13½ lbs.	56.92 lbs.	102 16-56 lbs.	Whitman.
Chas. W. Cushing.	44¼ "	75 "	12¼ "	52.48 "	107 8-56 lbs.	"
James Cushing....	31¾ "	56¼ "	10¾ "	57.39 "	80 40-56 lbs.	8-row yellow.

We give, below, the statements of the competitors, in order that an estimate may be made from them of the average cost of producing an acre of corn in that section.

Caleb Hobart's Statement.

Items of expense in raising one acre of corn:

For ploughing ground	$5,00
For two days pitching and spreading manure	2,00
For three cords of barn yard manure	10,00
For seven cords of barn cellar manure	42,00
For eight barrels hen pen manure	
For two and three-quarters days planting	2,75
For hoeing three times	9,00
For ploughing corn twice	2,00
Interest on land	6,00
	$78,75

Charles W. Cushing's Statement.

Ploughing one acre, $4; harrowing, $1	$5,00
Furrowing, $1; hoeing, $1	2,00
Thirteen loads coarse manure, at $1 per load	13,00
Two and one-half cords of sheep manure, at $5 per cord	17,50
Poudrette in the drill	12,00
Interest on land	4,50
Seed corn	75
Three days labor to plant corn	3,00
Cultivating and hoeing first time	3,00
Second time cultivating and hoeing	3,00
Third time do do	40
	$64,15

James Cushing's Statement.

The corn I planted in rows 3½ feet apart one way, and about 15 inches the other, three kernels in a hill:

May 16, ploughed in 6 cords manure, $5,50 per cord	$33,00
Expense of ploughing	5,00
May 18, furrowing ground	1,00
" four cords compost manure in hill	16,00
" twelve quarts seed corn	37
Five days work planting	6,25
Three times hoeing and cultivating	15,00
Interest on land	7,00
	$83,62

In addition to the above statements, we give that of the Hon. ALBERT FEARING, of Hingham. His corn was not entered for premium, but the account of the cost of production was furnished at the request of the committee. Mr. Fearing is President of the Society, and, although not working much with his own hands, is an ardent and intelligent cultivator of the soil. In speaking of Mr. Fearing's successful results, the committee say "they believe that he has produced not only the largest quantity of corn that was ever raised upon any one field in the town, but the largest quantity that was ever raised by any of our citizens in any one year."

Mr. Fearing's Statement.

PRODUCT OF SIX ACRES OF CORN.

Sound corn, 56 lbs. to the bushel, 471 bushels	
Unsound corn, 70 bush., equal 35—506, at $1	$506,00
20,160 lbs. top stalks, at $10 per ton	100,80
33,212 lbs. butt stalks, at $8 per ton	132,85
	$739,65

EXPENSES.

Ploughing three acres in the autumn of 1861	$13,50
34 cords of coarse barn manure, at $4	136,00
13 cords of fine manure, at $5	65,00
Carting manure, three men, two pair oxen, one horse and carts three days labor	4,00
Ploughing and spreading manure, four men, two pair oxen, one horse, three days labor	27,75
Harrowing, one pair oxen, one man, one day	2,50
Furrowing, one man, one horse, one boy, one day	3,00
Putting manure in hill, two men, one pr. oxen, 3½ days.	13,12
Planting, three men and one boy, three days labor	12,75
Seed corn, two bushels	3,00
Hoeing first and second time, 24 days	30,00
Hoeing third time	12,50
Cultivating first and second time, one man, one boy, one horse, two days labor	12,00
Cutting stalks, 10½ days	13,12
Binding and stacking the same	10,00
Carting stalks, three men, one horse, one day	5,00
Cutting and carting corn, three men, eighteen days	22,50
One pair oxen and cart three days	5,25
Husking 30 days, $37,50; interest and taxes, $36	73,50
	$484,49
Profit	$255,16

This land was well manured in 1861, and three acres planted with corn and three with rye, yielding 77 bushels of corn to the acre. The soil is a gravelly loam, was ploughed in the spring, about eight inches deep, with 34 cords of coarse manure spread before ploughing.

The corn was planted from the 10th to the 16th of May, in hills 3½ by 2 feet, five kernels to the hill, with 13 cords of fine manure put in 36,120 hills.

The stalks permitted to grow, averaged about 4½ to each hill. It was hoed the first time, from the 7th to the 12th of June; the second time, from the 21st to the 27th; and the last time, from the 14th to the 19th of July.

Five acres were planted with the Whitman, and

one acre with Dutton corn.

It will be seen that the product is 84½ bushels to the acre, and the cost of raising, 50 cents per bushel. ALBERT FEARING.

Table of Cost of Raising One Acre of Corn.

Competitors.	Manure and Fertilizer.	Ploughing.	Harrowing, &c.	Furrowing.	Planting.	Hoeing and Cultivating.	Seed.	Interest on land.	Total.
Caleb Hobart	69 00	5 00		1 00	2 75	11 00	50	6 00	95 25
Charles W. Cushing	42 56	4 00	2 00	1 00	3 00	6 40	75	4 50	64 15
James Cushing	49 00	5 00		1 00	6 25	15 00	37	7 00	83 62
Joseph Thomas	23 00	4 33		1 00	2 67	10 00	1 00	6 00	48 00
Charles W. Cushing	46 00	4 00	1 00	80	3 00	9 00	1 00	6 00	70 80

Average cost per acre, $70,56.

Table of cost of corn per bushel, including all the manure; cost per bushel, deducting one-fourth part of manure; also the labor expended in raising an acre:

Competitors.	Cost per bu. including all the manure.	Cost per bu. deducting ¼ of manure.	Labor of raising 1 acre of corn.
Caleb Hobart	77 cts. 8 mills	64 cts. 6 mills	19 75
C. W. Cushing	59 " 9 "	50 "	16 40
Jas. Cushing	103 " 2 "	88 " 1 "	27 25
Josh. Thomas	51 " 6 "	45 " 4 "	18 00
C. W. Cushing	86 " 3 "	72 " 3 "	17 80

Average of the above five crops per acre, 94 3-5 bushels; do. cost of corn, including all the manure, 75 cents 5 mills; do. cost of corn, deducting ¼ manure, 64 cents 1 mill; do. cost of manure and fertilizer per acre, $43,80; do. cost of labor per acre, $19,84.

By the preceding table, it will be seen that the average cost of the premium crops was $70,56 per acre; cost of Mr. Fearing's, $65,18 per acre.

Average cost of corn in the premium crops, including all the manure per bushel, 75 cts. 5 mills; cost of Mr. Fearing's, 77 cents 5 mills.

Average cost premium crops, deducting ¼ manure, 64 cents 1 mill; cost of Mr. Fearing's, 65 cents 9 mills.

Average cost of manure and fertilizer premium crops per acre, $43,80; cost of Mr. Fearing, per acre, $39,16.

Average cost of labor premium crops per acre, $19,84; cost of Mr. Fearing's, $19,52.

We take pleasure in giving so much of a report that seems to have been drawn from facts, as well established as they can be, short of an expensive and tedious process. It will be gratifying to most farmers. The committee, Messrs. CALEB GILL, BENJAMIN JONES and WARREN A. HERSEY, are gentlemen of accuracy and good judgment, and gave the matter all that care and attention which the importance of the subject demanded.

AN HOUR WITH THE LITHOGRAPHERS.

The art of printing has been wonderfully progressing within the last eight or ten years. Printing in colors has now become so perfect that it almost rivals the works of genius upon canvas. The beautiful posters, railway and other cards which may be seen in every part of the country, at the stations and common rooms of hotels, are not executed by the common processes of setting type, but are sketched upon stone and printed in different colors.

We were highly gratified a few days since, in passing through the rooms of Messrs. L. PRANG & Co., 157 Washington Street, Boston, and in witnessing the extent of their business, and the great beauty and exquisite finish of some of their work. We are not sufficiently acquainted with the technical terms of their art to give a clear description of what we saw. The first room which we entered was the sales-room, where a sample of all the work which they had done might be seen, and where large quantities of their publications, such as maps, portraits of distinguished persons and a variety of pictures, were for sale. The second, was a sort of proof-room, where we were invited to look at some sheets just ready "to go to press." The next was the "Artist's-Room." On a table before one of the number present stood a row of highly ornamental and beautiful lamps, of various devices and patterns, which the artist was transferring to the stone that lay upon his desk. The work seemed to us a slow and "head-achy" one, but every touch of the pencil of the calm and patient operator gave form and beauty to his work. Others were engraving upon copper, or engaged in some work applicable to their particular department. In the next room, eighteen presses were employed in getting impressions of the sketches of the artists.

The first press was throwing off a series of delightful little pictures of rural scenes, of play, of mischief in pantry or parlor, or of the emotions, for children. These were in *four* or *five different*

colors, and just as neat and attractive as can well be conceived. Another was printing the designs of lamps, and another samples of drawings for a school book for children. Another was striking off the first color of a picture of the mosses, and another the *sixth* or *seventh* color of butterflies and other beautiful insects,—and so on of birds, checks, labels, and a great variety of other things.

In some of these, as the moths, for instance, twelve different kinds of ink are used to get the colors of one of these little creatures, and, of course, twelve different impressions must be taken to complete the picture!

The stones upon which the sketching is done are brought from Germany. A room in the establishment is occupied by persons smoothing and preparing them for use. Every part of the business seemed to move with the regularity of clock work, as though governed by an intelligent and systematic head. The charming little packages of birds and flowers, mosses and moths, issued from the press of this enterprising house, will have a decided influence upon the manners and morals of thousands of our children. We wish them great success in their good work.

EXTRACTS AND REPLIES.

SOILING OF CATTLE.

More than fifty years ago, JOSIAH QUINCY, then a farmer of experience, published a book on this subject, and he favored me with a copy. I read it then, and have read it since, and have always thought it worthy of the attention of those who keep cattle. Why his suggestions have not been more regarded by the public, I cannot conceive. It is clear to my mind, that three times the number of cattle can be kept, and three times the amount of profit can be realized by observing Mr. Quincy's mode of feeding, instead of that usually practiced. PROCTOR.

May, 1863.

BOOKS FROM REPRESENTATIVES TO CONSTITUENTS.

I am indebted to the courtesy of our representatives, Messrs. HAMSON and ROBINSON, to the one for the valuable Report on Insects, of the late Prof. HARRIS, and to the other for the "Agriculture of Massachusetts." A recipient or not a recipient of their favors, I do heartily endorse the plan of representatives presenting to their constituents works published at the expense of the State, that have a special bearing on the calling or the tastes of the receiver.

The hoarding of such works by persons not interested in the subject on which they treat, when among their constituents are those to whom they would come as a very welcome friend, I can but view as a sin of some gravity against the interests of such constituents.

A few years ago the Legislature thought proper to vote itself copies of Prof. Hitchcock's able work on the Ichnology of Massachusetts; a work which treats learnedly on the "*Bifurculapes elachistotatus*," "*Hexapodichnus magnus*," "*Ancyropus heteroclitus*," and other species or genera of fossil remains, the detailed history of which might be supposed to be admirably adapted to satiate the natural cravings of the legislative mind. It is, of course, possible that some of these books found their way to the homes of appreciative constituents; but the great bulk, it is to be presumed, were too much thumb-worn by their profoundly interested owners to make the giving of them a decent act.

Marblehead, May, 1863. J. J. H. GREGORY.

☞ They have big cedars in the Aroostook district in Maine. From one of them recently cut, four thousand shingles were made.

For the New England Farmer.

RETROSPECTIVE NOTES.

"FEEDING MEAL TO STOCK."—The communication with this heading in weekly edition of the *Farmer* of March 28, and on page 143 of the monthly for May, is a very instructive and valuable one. The writer has noticed among the farmers of his acquaintance, that several of them feed meal in a *dry* state to their stock, and thinks it highly probable that some of the readers of this journal may be in the habit of pursuing the same wasteful practice, and, like those whose practice he is acquainted with, may feed four to eight quarts of meal a day to one beef creature, till they feed out from seven to ten cwt. of meal to one beef, and yet never succeed in getting it so fat as to yield any over forty pounds of rough tallow, if as much. To those who adopt such a method of fattening, or follow it from the mere force of habit or custom, "QUI NUNC" very benevolently suggests that this method is not a very remunerative one, but, on the contrary, is generally quite a wasteful one. A little reflection and calculation of expenditures and income will satisfy any one of the correctness of these propositions; and then the inquiry will naturally arise in the minds of all concerned, with the exception, perhaps of a few who always plod on in the old ruts, how this nonpaying or wasteful method, so generally practiced, is to be reformed or displaced by the substitution of a better one. The writer, in reply to this natural inquiry, gives a statement of the more profitable method of feeding meal which he himself has been led to adopt. "My practice," he says, "in fattening beef and swine, as well as feeding cows for milk, has been to pour boiling water on as much meal as would not make the animal's bowels move too freely, at night and in the morning; when the mush is cool, give it to the cow or pig." He does not believe, nor do I, that animals eating dry meal receive more than one-half of the nourishment contained in it; whereas, by steeping it in boiling water, or by a more thorough cooking of it, the latent nutritive properties are extracted, or made more easily digestible. But beside this testimony of theory or, more properly, of what is known as to the laws and processes of digestion, QUI NUNC has the testimony of his own experience, which has taught him, he says, that one cwt. of meal fed in the way he has described is equal to two cwt. fed dry. In proof or illustration of the superiority of his method of feeding meal over that of giving it dry, the writer states that, on hay and meal alone, he has fatted two ordinary sized cows with only three cwt. of meal each, so that they each yielded upwards of 40 lbs. of rough tallow.

Having adopted a very similar method of preparing or half-cooking meal of corn and other grain in slopping cows in winter, in fatting pigs, and in finishing off the feeding of our beef creatures, for upwards of a dozen years, we can most heartily commend and endorse the practice of QUI NUNC as set forth in the *very useful* article now under notice. The extra trouble is but trifling, and were it much greater it would be abundantly compensated for in any region of our country where corn and other grain can be marketed at or above one cent per pound. In regions where corn will bring only ten cents a bushel, the suggestions of QUI NUNC are not at present needed;

but in all districts of country where corn costs nearly or quite ten times the price just named, the suggestions of Q. N. are needed, and will be thankfully appreciated we doubt not, by many.

As a slight improvement upon the method of preparing meal adopted by Q. N., we would suggest that a teaspoonful or so of salt should be thrown into the mess each day instead of more only once a week, and that instead of a tablespoonful of wood ashes *occasionally* only, that amount should be given daily. Corn is very apt to sour in human stomachs and why not also in those of a cow, ox, or pig? Ashes will serve to prevent or correct this.

"EXPERIMENTS IN FEEDING PIGS."—On page 160 of the May issue of this journal, we find a fact in regard to the feeding or fattening of a pig, which, being given us by so reliable an authority as that of Mr. O. P. MEAD, goes far to settle some questions which seem yet unsettled in the minds of some farmers. One of these questions is —How much pork may usually be obtained from feeding a bushel of corn? To determine this question, we made some experiments two years ago, and at the same time made a collection of all the facts bearing upon it which we could find on record in agricultural books and journals, and the result of the whole was. that, on an average, 1 lb. of pork might be obtained from every 5 lbs. of corn consumed. In some cases more, and in others less than this result was obtained, the amouut being influenced apparently sometimes by the breed, sometimes by the age of the pigs, sometimes by the age of the corn, old corn being worth much more than new, and sometimes by unascertainable influences. The amount named above was, however, a fair average of a large collection of cases, in most of which the corn was fed in the usual way on the ear.

Another question which the fact stated by Mr. Mead will go a good way towards settling is this —How much farther will cooked food go in fatting pigs than uncooked? Almost all admit that there is some superiority; but, judging from general practice, few seem to be convinced that a bushel of corn will produce twice as much pork when cooked, as it would if fed raw in the usual way. But this, and more than this amount of superiority, is proved by the facts recorded by Mr. M. A pig weighing 400 lbs. at nine months old, had consumed 747 lbs. of meal, mostly in mush, which shows that less than 2 lbs. of meal cooked produced one pound of pork. MORE ANON.

LICE ON CALVES.—Nature is the best teacher. When cattle are pastured they will paw dirt upon their backs and rub their heads and necks against banks of earth, for the purpose of destroying the lice. Moved by this suggestion recently, after having bought a new milch cow which was lousy, I dried some dirt under the stove, pulverized it, and rubbed on the head, neck and such parts as were most affected by lice, which subdued them.

Two or three applications should be made, and again repeated after the nits or eggs are hatched, as the dirt does not destroy the eggs or nits.

Try it, if your calves or cattle are lousy. It costs nothing, and has no injurious effects like poisonous applications which are most in use.—GEORGE BACHELDER, *Stanstead, C. E., in Country Gentleman.*

LADIES' DEPARTMENT.

A PARAGRAPH FOR LADIES.

Most of our fair readers have a decided aversion to that part of their duty which falls under the "patching and darning" denomination. They are of opinion that "a rent may be the accident of a day; a darn, premeditated poverty." But if they only knew how pretty a well executed piece of repair looks, when you see in its warp and woof the bright threads of economy, and independence, and womanly thrift, crossing and recrossing one another, they would lay aside embroideries and crochet work, and take up, instead, the mending basket. We rode down town the other day, when the only other occupants of the stage were a young gentleman and a lovely girl of, we should think, about eighteen. She was the prettiest, freshest looking girl one would want to see—there were no tell-tale traces of midnight parties and headachy mornings in those peach blossom cheeks and clear, bright eyes; and all the numberless little items of her dress were as fresh and trim as she herself—from the pink bonnet strings down to the neatly fitting gloves and delicate gaiter boots. If we had been an old bachelor, or a young one either, we would certainly have fallen in love with that girl, particularly after we had discovered that she was as industrious as pretty. And how do you suppose we found it out? The handkerchief that lay in her lap told us so. The neat little darn, elaborately executed, in its corner, with the small white stitches and skilful handiwork, had a tongue quite audible to our ears. Time, and patience, and wise economy had been there. The gentleman sitting opposite saw the little token also; we noticed his eye turning from the handkerchief to the blooming face, and back to the handkerchief again, and we knew perfectly well what he was thinking of—the good wife that young lady would make, and how neat her husband's cravats and stockings would be! Poor fellow, the edges of his shirt bosom were a little frayed, and one or two buttons were missing, whose detection the most skilful arrangement of his cravat ends could not conceal. Perhaps he had a wife who didn't believe in mending and darning—perhaps he had he had none at all. However that may have been, his admiring eyes appreciated the darn on the handkerchief more than if it had been the richest and most sight-destroying embroidery—not for what it was, but what it betokened. Girls! don't shrink from a mended place as if it were a plague spot; the longer your old things last, the better able you will be to have new ones by-and-bye. Sensible people read your character in little things; and nobody will think the worse of you, whatever may be your station in life, for the exercise of economy and thrift. A stitch in time saves nine, and sometimes it saves a great deal more than that.—*English paper.*

A WOMAN'S mission, as the world goes, is to make home happy; a man's to find the means wherewith she may do it. Woman's work should be, as woman was herself, the completion of all labor. From her must come those final touches and culminating graces which make a dinner of herbs a pleasant banquet, and a cottage starred over with jessamine a palace of contentment.

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CATTLE MARKETS FOR MAY.

The following is a summary of the reports for the five weeks ending May 21, 1863:

NUMBER AT MARKET.

	Cattle.	*Sheep.*	*Shotes.*	*Fat Hogs.*	*Veals.*
April 23.....	913	1947	550	500	800
April 29.....	1503	2900	1000	700	900
May 7.....	1035	3015	600	1600	1200
" 14.....	831	1678	1500	1800	900
" 21.....	979	1880	1300	500	950
Total.....	5261	11,420	4950	5100	4750

The following table exhibits the number of cattle and sheep from each State for the last five weeks, and for the corresponding five weeks last year; also the total number for the first twenty-one weeks of each year:

	THIS YEAR.		LAST YEAR.	
	Cattle.	*Sheep.*	*Cattle.*	*Sheep.*
Maine	182	—	87	—
New Hampshire	591	3716	222	1972
Vermont	779	6450	614	8866
Massachusetts	771	940	528	998
Northern New York	33	—	84	—
Canada	229	—	60	49
Western States	2676	314	4846	—
Total, last five weeks	5,261	11,420	6,441	11,885
Total, since Jan. 1, (21 w'ks,)	29,023	55,935	26,040	55,537

PRICES.

	Apr. 23.	*Apr.* 29.	*May* 7.	*May* 14.	*May* 21.
Beef, 1st, 2d, 3d qual.	8 @9¼	7¼@9¼	7¼@9¼	7¼@9¼	7¼@9¼
" a few extra	...10 @10¼	@10	7¼@10	7¼@10	@10
Sheep, ₩ lb.	.....5 @9¼	4 @9	4 @9	*4 @6	*4@6¼
Swine, stores, w'sale.	.5 @8	5 @7	5¼@8¼	5 @7	5@7
" " retail.	.5 @8¼	6 @8	7 @9	6¼@9	6¼@8
Hides, ₩ lb.	..7¼@8¼	7¼@8¼	7 @8¼	7¼@8	7¼@8¼
Pelts, each	.$3 @3¼	$3 @3¼	$2¼@3¼	$2¼@3¼	2¼@3¼
Tallow, ₩ lb.	.8 @8¼	8 @8¼	@8	@8	8 @8¼

* Sheared sheep only.

REMARKS.—The market for cattle has been steadier the past five weeks than it was during the previous months. Prices for beef, however, were nearly ¼c ₩ lb. higher on the first week of the five than it has been since. On that week, (April 23,) the best of the Western steers at Brighton were sold at 10¼ @ 10½c ₩ lb., with an allowance of from 27 to 30 ₩ cent. on the live weight, for offal. Since then scarcely any have been sold higher than 10c, 30 sk., and only the choicest bullocks at that. Most of the cattle at market have been sold at from 8 to 9½c ₩ lb., on the dressed weight.

With sheep the month has been a sort of transition period, in which most of them have passed from the fleeced to the unfleeced state. The prices quoted for the past three weeks are for both clipped and unclipped sheep, while the prices for the last two are for sheared ones ones only. Although there has been no great change in prices, the market is by no means settled. For the last two weeks, well-fatted sheep have been in demand, as there have been but few good ones at market, and none at all from the West, for the last four weeks. At the last market, prices for sheared sheep ranged from 4 to 6¼c ₩ lb. on the live weight of sheared sheep. There was but a small number on sale, and the market closed with an upward tendency, as prices are higher in Albany than in Brighton.

For working oxen and milch cows the market has been good, for those of good quality. The demand for workers has been slacking, as farmers have secured their teams for spring work. Cows, particularly good ones, are none too plenty.

With veal calves the market is over-stocked. There have been nearly 5000 live calves at the five last markets; besides, probably, at least one-half as many more dressed veals, by boats and railroads. The result is, prices are low; and butchers, drovers and farmers suffer. From $3,50 to $5 each, are common prices; a very few good ones at $6. Dressed veal, by the carcass, from 3c to 6½c ₩ lb.; and those of pretty fair quality were sold at the last two markets for 4½c ₩ lb.

Sales of Cattle and Sheep.

From our report of sales, May 21:

J. D. Billings sold to S. S. Learnard 11 good oxen, at from 9¼ to 10c ₩ lb., among which were four uncommonly fine ones. A pair fed at the Insane Hospital, Northampton, said to weigh 4500 lbs., we understood were sold for $350. But at any rate, they were extra among the extras. Some one of the lookers-on said, "I guess the folks are not all crazy where these oxen came from;" to which somebody else remarked, "I dont know about that; none but a crazy man would feed out meal enough to make *such* oxen." Another pair, fed by Mr. Billings himself, weighing at home, with a light yoke on their necks, 4820 lbs., were fat enough, straight, well-formed bullocks.

Geo. W. Morrison sold one pair of extra oxen, laid at 2250 lbs., for $220. These oxen were fed by Geo. W. Hunkins, of Sanbornton, N. H., and were a smooth, well-fatted pair. Four others for $298, to dress 3500 lbs., and four others, perhaps one hundred lbs. lighter, for $296; 4 steers, live weight 4400 lbs., for 8½c, 33 sk.; one cow, laid to dress 1100 lbs., at 8¾c, and two very much smaller cows, say 450 lbs. each, for $65.

John Sawyer sold 30 very fair New Hampshire oxen, at from 8¼ to 9¾c. At 9¾c ₩ lb. he sold one pair, laid to dress about 1700 lbs., which, though not large, were a very nice pair of oxen, smooth and plump. They were fed by Lowell Sanborn, of Guilford, N. H.

A. M. Wright sold 256 sheep at an average of 5¼c ₩ lb.; J. Lamson sold 150 sheep about 70 lbs. each, for 5c; De Wolf & Prouty sold to J. W. Hollis 159 sheep fed by Wm. Ramsay, of Walpole, N. H., for 6¼c ₩ lb. This is the highest price paid this week, and the butchers admitted that they are the best lot at market. Their live weight at Cambridge was 14,885 lbs., or about 94 lbs., each. E. Riford sold a fine lot to Mr. Bates, on drift, costing something over 6c.